

SANYO

Service Manual CD Stereo Sound System

DC - X502 (GERMANY)



Specifications

Tuner section

Frequency range FM : 87.5 - 108 MHz
MW : 522 - 1,611 kHz
LW : 144 - 290 kHz

General

Output power 15 W x 2 (at 8 ohms, 10% distortion)

Turntable section

Drive system Belt drive

Cassette deck section

Recording system AC bias, 4-track stereo

Rewind and fast

forward time Approx. 120 sec. (C-60)

CD player section

Channels 2 channels

Frequency response 20 - 20,000 Hz

S/N ratio 85 dB (1 kHz)

Channel separation 90 dB (1 kHz)

Distortion 0.12% (1 kHz)

Wow and flutter Undetectable


Inputs VIDEO : 47k ohms (280 mV)

Outputs SPEAKERS : 8 ohms

HEADPHONES : 8 ohms

Power requirements AC : 230V, 50Hz

Dimensions (approx.) 360 (W) x 350 (D) x 395 (H) mm.

Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation
"DOLBY" and the double-D symbol  are trademarks of Dolby Laboratories Licensing Corporation.

Specification subject to change without notice

REFERENCE No. WM-580614

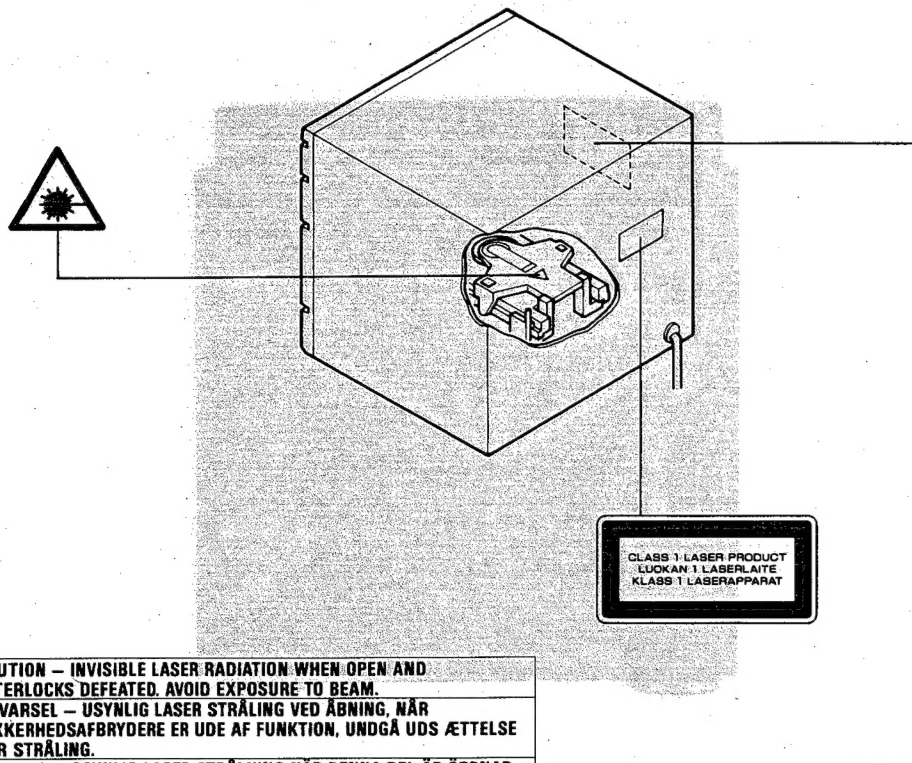
LASER BEAM SAFETY PRECAUTIONS

Do not look directly at the laser beam coming from the pick-up or allow it to strike against your fingers, skin, etc.
Do not apply power if there is a broken part in the laser output section of the pick-up.

Structural Safety Interlock

This model has a disc chuck lever and top lid. This disc chuck lever and top lid prevent to expose the laser beam for users.

INVISIBLE LASER RADIATION EXPOSURE TO BEAM IS DANGEROUS CLASS 1 LASER PRODUCT
OUTPUT POWER : 0.6 mW MAX(Objection Lens) WAVELENGTH : 790 nm



CAUTION – INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCKS DEFEATED. AVOID EXPOSURE TO BEAM.
ADVARSEL – USYNLIG LASER STRÅLING VED ÅBNING, NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION, UNDGÅ UDSÆTTELSE FOR STRÅLING.
VARNING – OSYNLIG LASER STRÅLNING NÅR DENNA DEL ÄR ÖPPNAD OCH SPÄRR ÄR URKOPPLAD. STRÅLEN ÄR FARLIG.
VORSICHT – UNSICHTBARE LASERSTRAHLUNG TRITT AUS, WENN DECKEL GEÖFFNET UND WENN SICHERHEITSVERRIEGLUNG ÜBERBRÜCKT IST. NICHT, DEM STRAHL AUSSETZEN.
VORO – AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTHINA NÄKYMÄTTÖMÄLLE LASERSÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN.

CAUTION - USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

ACHTUNG - WENN ANDERE ALS DIE HIER SPEZIFIZIERTEN BEDIENUNGS- ODER JUSTIEREINRICHTUNGEN BENÜTZT ODER ANDERE VERFAHRENS-WEISEN AUSGEFÜHRT WERDEN, KANN DIES ZU GEFÄHRLICHER STRAHLUNGSEXPOSITION FÜHREN.

ATTENTION - L'EMPLOI D'ORGANES DE COMMANDE OU DE RÉGLAGE, OU L'EXÉCUTION DE PROCÉDURES, AUTRES QUE CEUX SPÉCIFIÉS DANS LE MODE D'EMPLOI, PEUT PROVOQUER UNE EXPOSITION DANGEREUSE AU RAYONNEMENT.

OPGELET - HET GEBRUIK VAN REGELAARS OF HET MAKEN VAN AFSTELLINGEN E.D. DIE NIET IN DEZE GEBRUIKSAANWIJZING ZIJN BESCHREVEN KAN LEIDEN TOT SCHADELIJKE STRALINGEN.

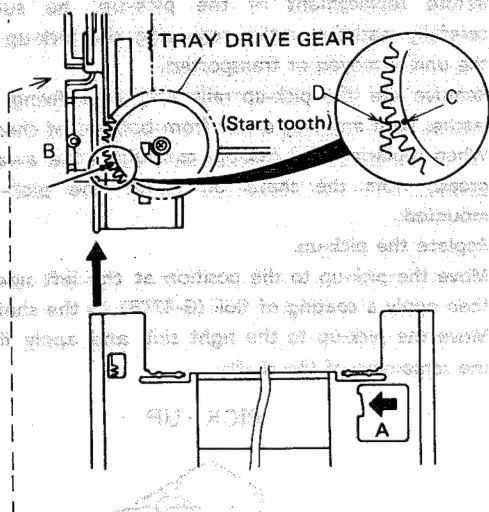
VARNING! OM APPARATEN ANVÄNDS PÅ ANNAT SÄTT ÄN VAD SOM BESKEIV I DENNA BRUKSANVISNING, KAN ANVÄNDAREN UTSÄTTAS FÖR OSYNLIG LASERSTRÅLNING, SOM ÖVERSKRIDER GRÄNSEN FÖR LASERKLASS 1.

CAUTELA - L'USO DI COMANDI, AGGIUSTAMENTI O PROCEDIMENTI DIVERSO DA QUELLO QUI SPECIFICATO PUÒ DAR LUOGO AD ESPOSIZIONE A RADIAZIONI PERICOLOSE.

VAROITUS! LAITTEEN KÄYTTÄMINEN MUULLA KUIN TÄSSÄ KÄYTTÖOHJEESSA MAINITULLA TAVALLA SAATTAA ALTISTAA KÄYTTÄJÄN TURVALLISUUSLUOKAN 1 YLITTÄVÄLLE NÄKYMÄTTÖMÄLLE LASERSÄTEILYLLE.

DISASSEMBLY (CD MECHANISM)

1. Removal of DISC TRAY



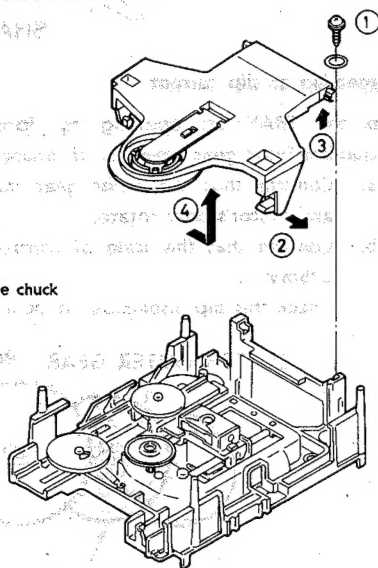
- Drive the mechanism to open end. OPEN / CLOSE Switch : Push ON
- Pull the TRAY off the mechanism. (Push the A rib of the TRAY to the direction of arrow and free from chassis rib.)
- Turn the PICK-UP drive gear (under chucking lever) slowly manual forward clockwise and move the slide to the front end.
- Match the guide groove of TRAY to the chassis guide and insert to the direction of arrow.
- Insert the TRAY to the mechanism after to match the C (tooth bottom) to the D (starting tooth) of TRAY rack. Then complete the close motion by OPEN / CLOSE Switch : Push ON.

Note : Never turn the TRAY drive gear by hand directly in the all mechanism adjustment so that you will not wound the teeth of the TRAY drive gear.

(If the left slide obstructs the special screw, turn the PICK-UP drive gear a little.)

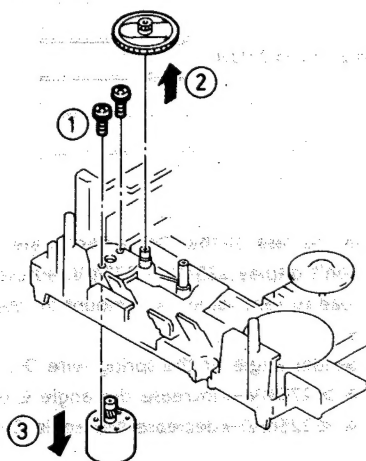
2. Removal of CD Mechanism

a. Removal of the disc chuck lever

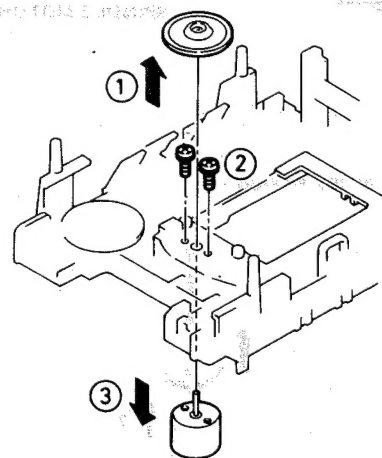


Pull the flange ② of the chuck lever to the outer side.

b. Removal of the sled motor



c. Removal of the spindle motor



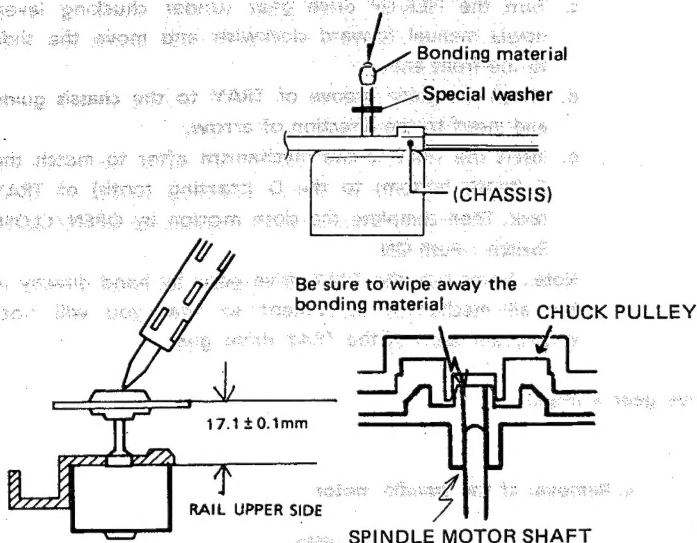
- First, prepare the new turn-table and new special washer for replacement. And prepare dial-type calipers. The removed turn-table will be deformed by the heat of the soldering iron, and cannot be reused.
- The attached bonding material can be dissolved by using a 60W soldering iron to heat the shaft at the lower part of the turn-table for about one minute.
- The turn-table can then be removed from the shaft by very carefully applying force upward at the center of the lower surface of the turn-table.
- Remove the two screw and remove the spindle motor.
- Attach the special washer to the spindle motor.
- Apply a small amount of a mixture(50 : 50) of the "Three Bond 2001" and "2105F" bonding materials to the motor's shaft.

DISASSEMBLY (CD MECHANISM)

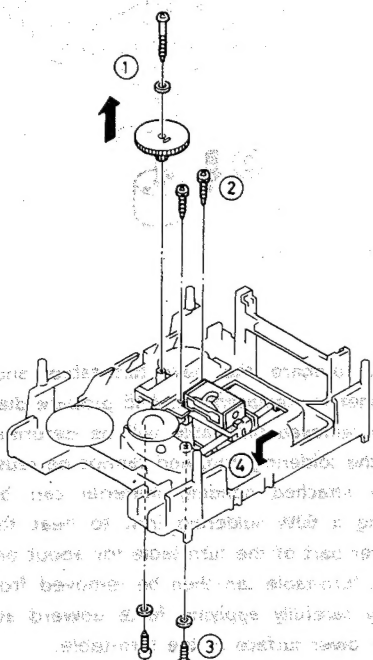
f. Install the turn-table as shown in the figure.

g. Secure the turn-table by pressing gently. Be sure to wipe away (by using a piece of cloth, or similar material) any bonding material coming out of the hole.

Don't attached bonding material at the top of shaft

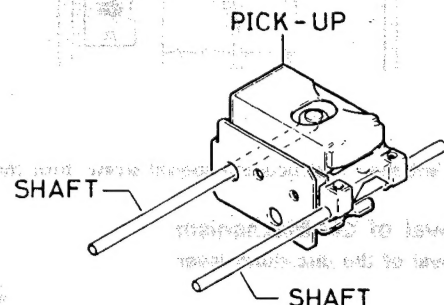


d. Removal of the Pick-up



e. Replacement and lubrication of the Pick-up

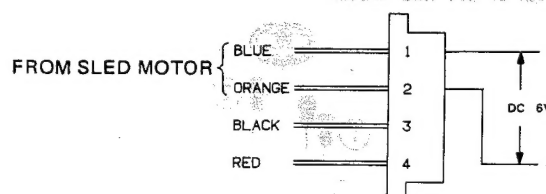
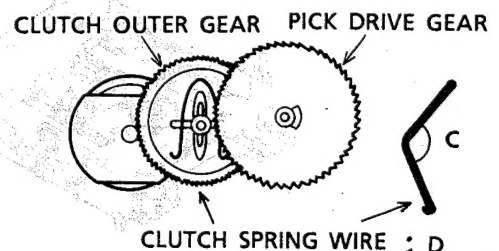
- Before replacement of the pick-up, be sure to carefully read the section regarding the pick-up when the unit is moved or transported.
- Remove the two pick-up rails with care fixing the 2 latches with any way driver from bottom of chassis.
- When replacing the pick-up, carefully wipe away the grease from the shafts on which the pick-up is mounted.
- Replace the pick-up.
- Move the pick-up to the position at the left side, and then apply a coating of floil (G-474B) to the shafts.
- Move the pick-up to the right side and apply floil to the remaining of the shafts.



f. Inspection of slip current

Stop the TRAY on opening by force, check the slip mechanism (next gear assembly of motor)

- Confirm that the inner gear stops and outer gear and motor's gear rotate.
- Confirm that the scale of control meter is 225mV ~ 275mV.
- Check this slip inspection on DC 6.0V.



- * In the case of that DC current scale don't display 225mV ~ 275mV, adjust to below items.
read current value : A · amount of the grease (Silicon G333) : B
bender angle of the spring wire D : C
A > 275mV → increase the angle C or decrease B.
A < 225mV → decrease the angle C or increase B.

CD ADJUSTMENT

Electrical Adjustment

So far we have presented explanations regarding compact disc player handling, notes prior to repair, handling the pick-up and disassembly of the unit. Be sure to carefully read these instructions before making any adjustments.

Test discs required for adjustments and checks

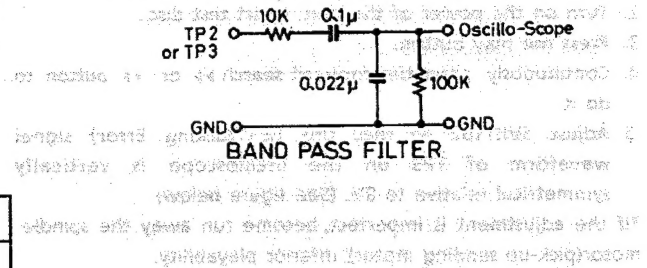
No.	Destination	Description (manufacturer)
1	414 245-2	for Demonstration (Polygram)

Preparations for Adjustments

Measuring instruments, tools and filter

- (1) Test disc : YEDS 17, -10dB, 1KHz (Sony)
- (2) Oscilloscope : SS5711 (10MHz or dual phenomenon) or Memoryscope : DSS6521 (Storagescope)
- (3) Digital voltmeter (Input impedance 1M ohm or more)

Note : Test disc are subject to change without notice.



- (4) Oscillator (400Hz, 300mV RMS)
- (5) Frequency Counter (5MHz ; or more)
- (6) Screw drivers (non-metalic) for adjustments
- (7) Filter
- (8) DC Power supply : 15V, 1A Class

- Notes : a. The adjustments can be using the equipment produced by other manufactures provided that the performance of that equipment corresponds to that of the above listed models.
- b. Use a 10 : 1 probe for observing signals on the oscilloscope and storage scope.
- c. Test disc is subject change without notice.

1. Initial set up

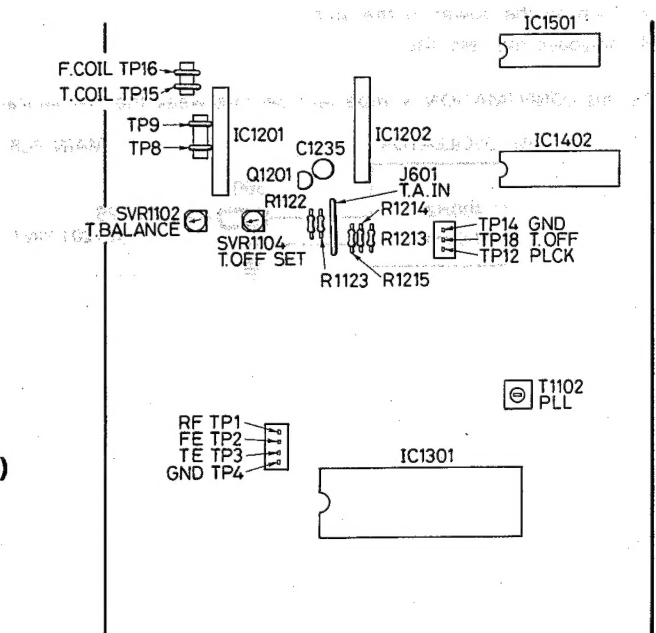
Set the initial position of adjustment controls as shown in figure below.

2. Free-run Frequency adjustment(PLL-VCO)

1. Connect the frequency counter to TP12(H), TP14(GND).
 2. Turn on the power of the unit.
 3. Adjust T1102 so that the frequency counter shows 4.30 ± 0.01MHz.
- if the adjustment is imperfect, get the long seek time, not read TOC, not sound. in the worst case become high speed turning, reverses turning and it may wound the disc.

3. Tracking Offset Adjustment (adjustment location : SVR1104)

1. Connect the oscilloscope to TP15 ⊕(T.Coil) , TP4 (GND), and shot TP18(T.Off), TP14(GND).
 2. Turn on the power of the unit.
 3. Adjust SVR1104 so that the DC voltage at TP15 is 60mV ± 20mV.
- if the adjustment is imperfect, become inferior playability can not playback the disc.



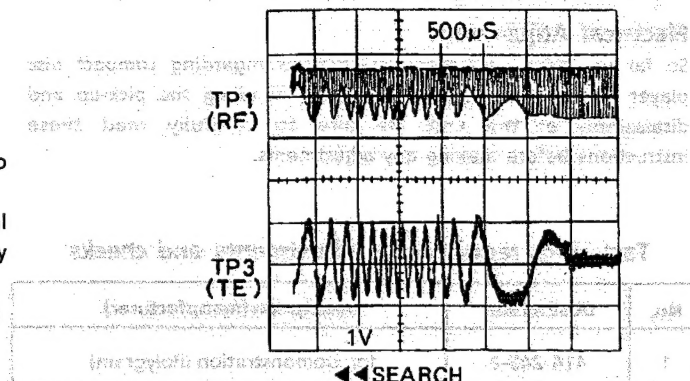
Note : Set the SVR's to the position as shown prior to the adjustment.

CD ADJUSTMENT

4. Tracking Balance Adjustment (SVR1102)

1. Connect the oscilloscope to TP3 (TE) and TP4 (GND.).
2. Turn on the power of the unit. Insert test disc.
3. Press the play button.
4. Continuously press the forward search \gg or \gg button to do it
5. Adjust SVR1102 so that the TE (Tracking Error) signal waveform of TP3 on the oscilloscope is vertically symmetrical relative to 0V. (See figure below)

*If the adjustment is imperfect, become run away the spindle motor (pick-up sending motor), inferior playability.

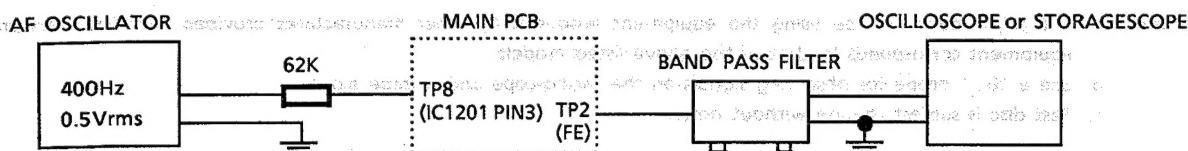


5. FOCUS Gain CONFIRMATION

1. Connect the storage scope to TP2 (F.E) by the Band pass filter. (See BPF Figure)
2. Turn on the power of the unit.
3. play the test disc.

4. Set the output of AF oscillator to 400Hz, 0.5V rms and connect to TP8 (IC1201 pin 3) by resistor 62k ohm.
5. Confirm so that the voltage of F.E signal waveform on the storage scope is 1V p-p, ± 3 db by through BPF.

*If this CONFIRMATION is imperfect, become weak the mechanical shock, inferior playability, and can not playback the Disc.

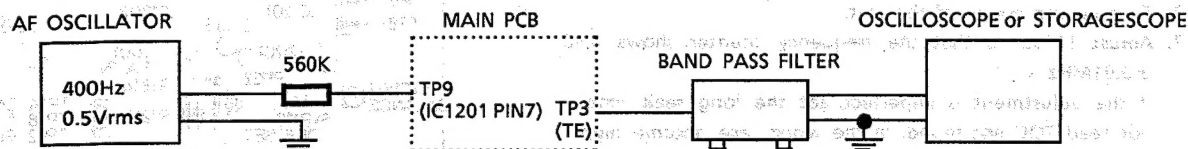


6. Tracking Gain CONFIRMATION

1. Connect the storage scope to TP3 (T.E) by the Band pass filter. (See BPF Figure).
2. Turn on the power of the unit.
3. playback the test disc.

4. Set the output of AF oscillator to 400Hz, 0.5V rms and connect to TP9 (IC1201 pin 7) by resistor 560k ohm.
5. Confirm so that the voltage of T.E signal waveform on the storagescope is 1V p-p, ± 3 db by through BPF.

*If this CONFIRMATION is imperfect, become weak the mechanical shock, inferior playability, and can not playback the Disc.



TUNER ADJUSTMENT

- Use a plastic screwdriver for adjustment.
- Adjust the intermediate frequency of AM and FM to the frequency of ceramic filter.

RF Level : 75 ohm, Open SG voltage: dB μ V

(1) FM BAND

Antenna : 75 ohm Unbalanced - Direct Modulation : 1kHz, Dev. : ± 22.5 kHz (mono/stereo), ± 6.75 kHz (pilot)

STEP	ITEMS		FREQUENCY INDICATED POSITION	INPUT CONDITIONS		OUTPUT CONDITIONS		ADJUST-ING PARTS	STANDARDS
				MEASURING INSTRUCTIONS	CONNECT-IONS	MEASURING INSTRUCTIONS	CONNECT-IONS		
1	IF	V-Curve	98.0 MHz	FM Sweep Gen-erator (10.7MHz Non Modulation Small Input)	TP103(H) TP102(E)	FM Sweep Generator	V: TP203(H) S: TP204(H) TP205(E)	T201	Max.
		S-Curve					T202	Symmetrical Wave Max.	
2	Tuning Cover	Low	87.5 MHz	-----	----	Digital Voltmeter	TP401(H) TP102(E)	L104	1.25 ± 0.05V
		High	108.0 MHz					---	Confirm voltage below 8.5V
3	Tracking	Low	90.0 MHz	FM-SG(9dB)	FM ANT Terminal	VTVM Oscilloscope	Tuner Out (L / R & E)	L101 L102	Max.
		High	106.0 MHz					CT101	
4	IF S-Curve (0V)		98.0 MHz	FM-SG(66dB)	FM ANT Terminal	Digital Voltmeter	TP201(H) #TP202(E)	T202	0 ± 0.05V
5	SD (Auto stop sensitivity)		98.0 MHz	FM-SG(26dB)	FM ANT Terminal	Digital Voltmeter	TP207(H) TP205(E)	SVR201	##SD Output low
6	### VCO (19 kHz)		98.0 MHz	FM-SG(66dB) (Non Modulation)	FM ANT Terminal	Frequency Counter	TP301(H) TP302(E)	SVR302	19 ± 0.05kHz

: TP202 is no earth point. Be careful so that digital voltmeter earth (including case) may not be in contact with other measuring equipments earth. (including case)

: Rotate SVR201 to less than 4V. Adjust and confirm SG attenuator to be Hi (about 4V) at -1dB and low (below 1V) at +1 to +3dB.

: Use IHF filter adjusted from 200~15000 Hz BPF. Set the Mode switch to STEREO position.

(2) MW BAND

Antenna : IRE Loop, Standard output : 100dB, Modulation : 1kHz 30%

STEP	ITEMS		FREQUENCY INDICATED POSITION	INPUT CONDITIONS		OUTPUT CONDITIONS		ADJUST-ING PARTS	STANDARDS
				MEASURING INSTRUCTIONS	CONNECT-IONS	MEASURING INSTRUCTIONS	CONNECT-IONS		
1	IF		999 kHz	AM Sweep Generator (459kHz Non Modulation)	TP151(H) TP152(E)	AM Sweep Generator	TP206(H) TP205(E)	X205	Max.
2	Tuning Cover	Low	522 kHz	----	----	Digital Voltmeter	TP401(H) TP102(E)	L151	1.4 ± 0.03 V
		High	1611 kHz					CT151	7.8 ± 0.3 V
3	Tracking	Low	603 kHz	AM-SG(78dB)	IRE Loop Ant.	VTVM Oscilloscope	Tuner Out (L/R & E)	L152	Max.
		High	1404 kHz					CT152	
4	SD (Auto stop sensitivity)		999 kHz	AM-SG(85dB)	IRE Loop Ant.	Digital Voltmeter	TP207(H) TP205(E)	SVR202	#SD Output low

: Rotate SVR202 to less than 4V. Adjust and confirm SG attenuator to be Hi (about 4V) at -1dB and low (below 1V) at +1 to +3dB.

This must be after FM-SD adjustment. When rotating SVR201 after AM adjustment, make adjustment again.

TUNER ADJUSTMENT

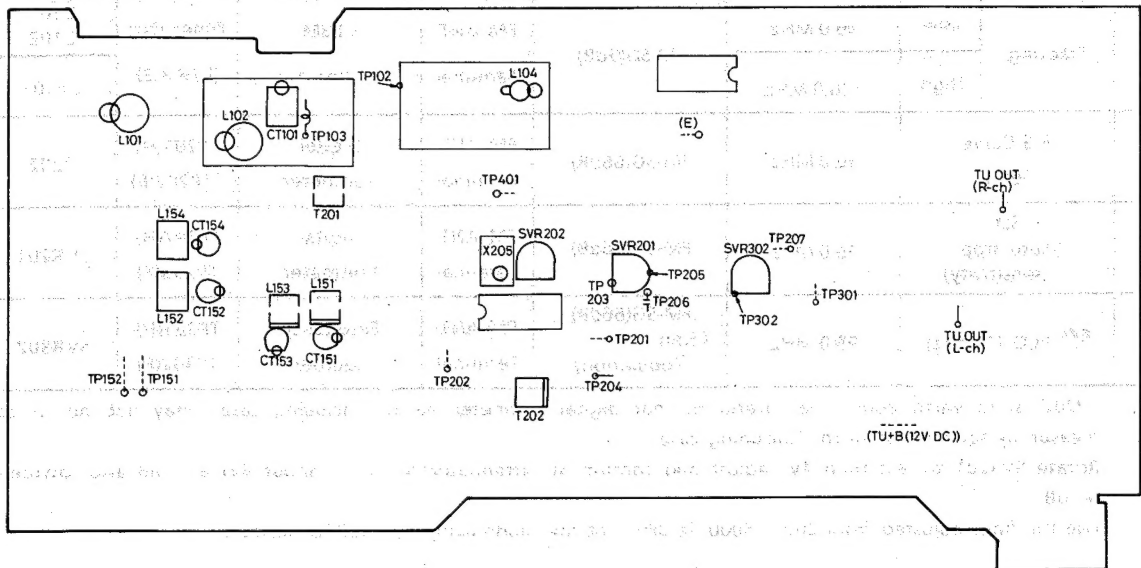
LW BAND

Antenna: IRE Loop, Standard modulation: 400Hz 30%

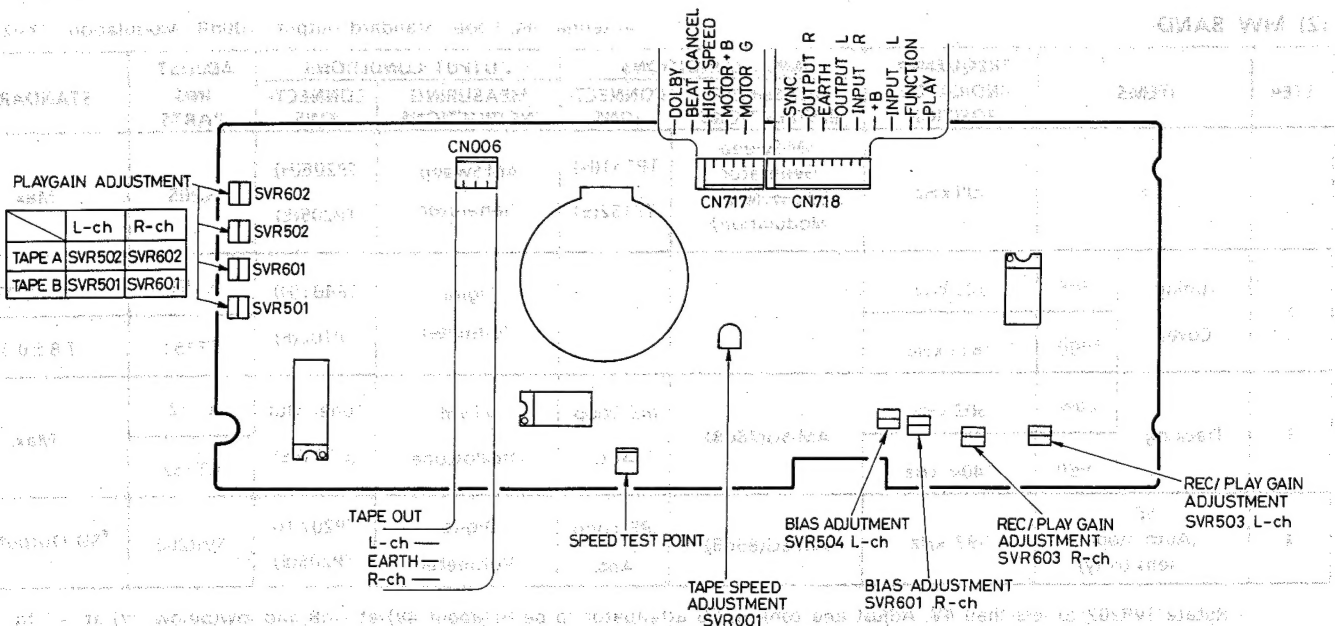
STEP	ITEMS		FREQUENCY INDICATED POSITION	INPUT CONDITIONS		OUTPUT CONDITIONS		ADJUSTING PARTS	STANDARDS
				MEASURING INSTRUCTIONS	CONNECTIONS	MEASURING INSTRUCTIONS	CONNECTIONS		
2	Tuning Cover	Low	144 kHz			Digital Voltmeter	TP401(H)	L153	$1.6 \pm 0.03V$
		High	290 kHz				TP102(E)	CT153	$7.0 \pm 0.05V$
3	Tracking	Low	162 kHz	AM-SG(85dB)	IRE Loop	VTVM	Tuner Out	L154	Max.
		High	279 kHz		Ant.	Oscilloscope	(L/R & E)	CT154	

PARTS LOCATIONS

<TUNER>



<DECK>



ADJUSTMENT OF DECK & MECHANISM TORQUE

Amplifier Adjustment

	ITEM	DECK	TEST TAPE	INPUT	DOLBY SW	OUTPUT	ADJUST POINT	REMARKS
1	Head Azimuth	TAPE A TAPE B	VTT-738	-	OFF	TAPE OUT	Azimuth Screw	Adjust so as 10kHz output become maximum.
2	Playback Level	TAPE A TAPE B	TCC-130	-	OFF	TAPE OUT	SVR502 SVR602 SVR501 SVR601	Adjust so as TAPE OUT output become 0.54V.
3	Rec/Play Level	TAPE B	AC-224	1kHz -13dB	OFF	TAPE OUT	SVR503 SVR603	Adjust SVR so as Monitor output = R/P Level = 0 ± 1 dB.
4	Rec/Play Frequency	TAPE B	AC-224	1kHz/10kHz -20dB	ON	TAPE OUT	SVR504 SVR604	Adjust to obtain same output of 1kHz and 10kHz.

Input terminal: VIDEO IN

- Note.**
1. Perform BIAS alignment by SVR504-604 so as No.3 satisfy spec of all item. Perform output alignment by SVR503-603.
 2. During alignment, measurement Beat cancel SW is at 1 condition fundamentally, cfm. R/P frequency characteristic, dolby effect also by 2 condition, when ship out set SW to 1 position.
 3. Fix to MAIN VR the position that SP output playing VTT722 is about 2.83V-10dB.(2.83V \approx 1W output)

Tape Speed Adjustment

STEP	SPEED	DECK	TEST TAPE	SVR	TAPE COUNTER	REMARKS
1	Normal	TAPE A	MTT-111N etc. : 3000 Hz	SVR001	3000 \pm 5Hz	Memorize the tape speed on counter.
2	High	TAPE A	TCW-211 etc. : 1500 Hz		3000 - 40 \sim + 70Hz	

Connect the tape-speed(frequency) counter to TAPE OUT on P.C.Board.

Confirm that the Tape speed of TAPE A is in 3000 - 40 \sim 70Hz by the TCW-211 test tape.

1. Set the test tape(MTT-111) to "TAPE A" deck. (play only mechanism)
2. Adjustment to obtain the tape speed counter at play of step 1.

Note: Set the test tape near the tape end.

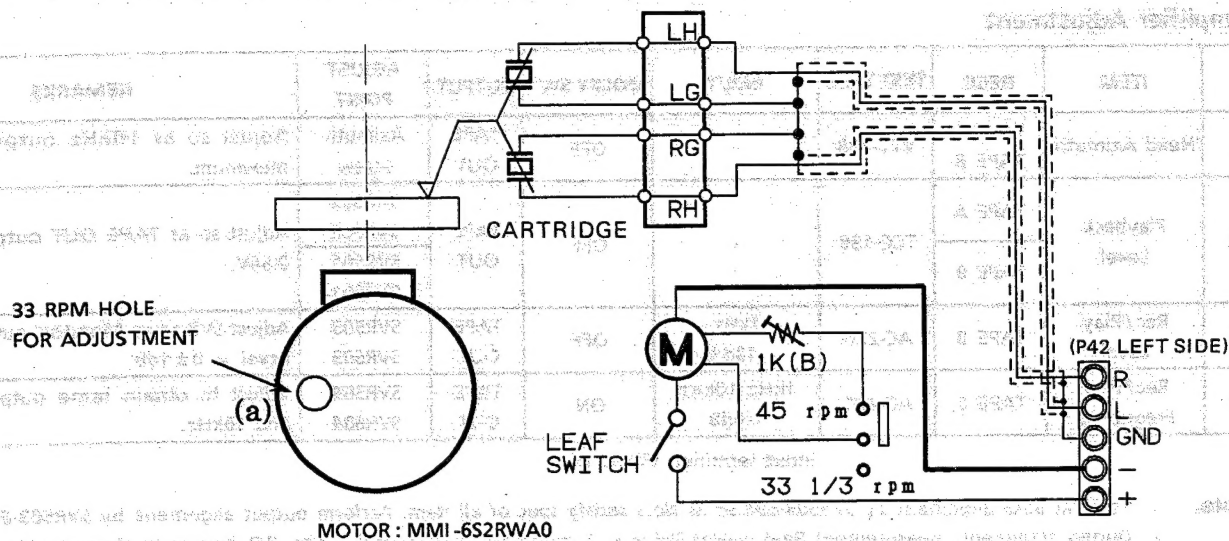
*High speed adjustment should be made after normal speed adjustment.

1. Set the Blank tape(C-60) to "TAPE B" deck. (record/play mechanism)
2. Set the test tape (TCW-211) to "TAPE A" deck.
3. Set the Dubbing speed "HIGH".
4. Confirm the indication of the tape speed counter within 2 second after push the PLAY(TAPE A) and REC. (TAPE B) button.

Torque Measurements

ITEM	TAKE-UP TORQUE	BACK TENSION	TAPE TENSION
Test cassette	PLAY:TW2111A F.FWD/REW:TW2231	PLAY:TW211A	Driving power cassette: TW-2412
PLAY	30 \sim 60gr.cm	2.0 \sim 4.5gr.cm	> 60g
F.FWD	55 \sim 120gr.cm	-	
REW	55 \sim 120gr.cm	-	

CHEMATIC DIAGRAM(TURN TABLE)



ADJUSTMENT PROCEDURES

Speed adjustment

1. 45 rpm adjust SVR (in the PCB Assy: P23) ← 45/33 SW : 45
2. 33 1/3 rpm adjust SVR in the MOTOR through the hole(a) above Fig.

Replacement of cartridge

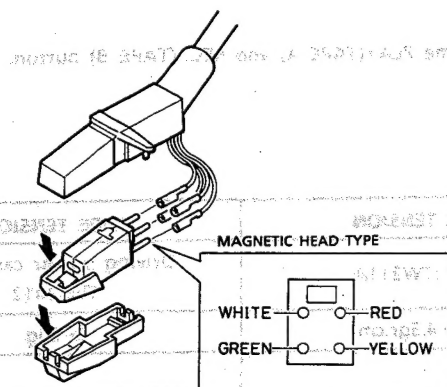
1. Use the + driver.
2. Remove lead wires connected to terminal strip with soldering iron. (R+), (R-), (L+), (L-)

MAGNETIC TYPE

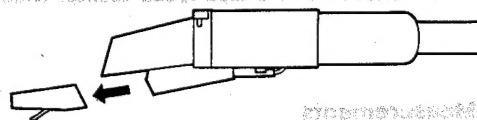


Replacement of stylus

The diamond stylus of the Turntable can normally play for about 300 to 500 hours. However, when sound becomes noisy, check the stylus for wear. If worn out, replace it. Pull the stylus out from the cartridge. Be careful not to touch the stylus tip when replacing the stylus. Hold Headshell by Finger, And Pull Out The Old Stylus.

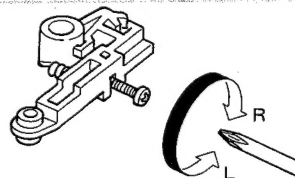


MAGNETIC TYPE



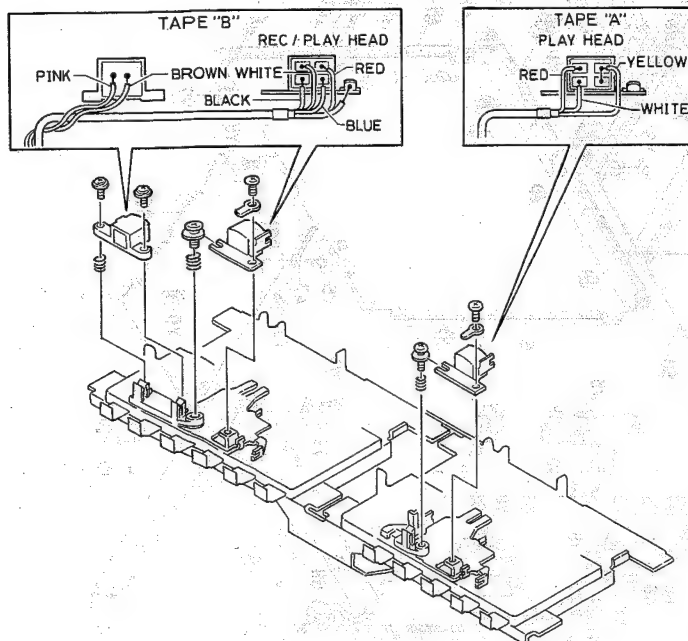
Return adjustment

1. To retard the timing of return, turn the fine adjustment screw clockwise.
2. To advance the timing, turn the fine adjustment screw counter-clockwise.

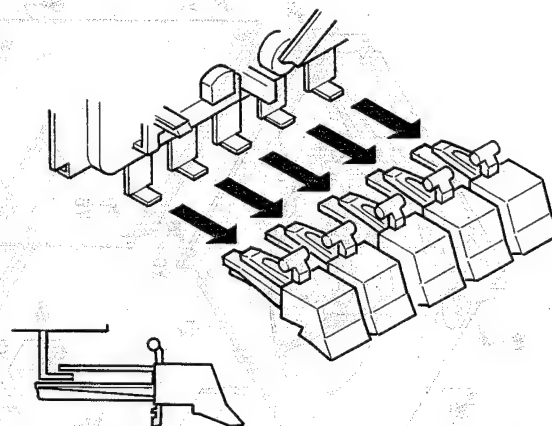


DISASSEMBLY (TAPE MECHANISM)

1. Replacement of Head



2. Assemble of mechanism button

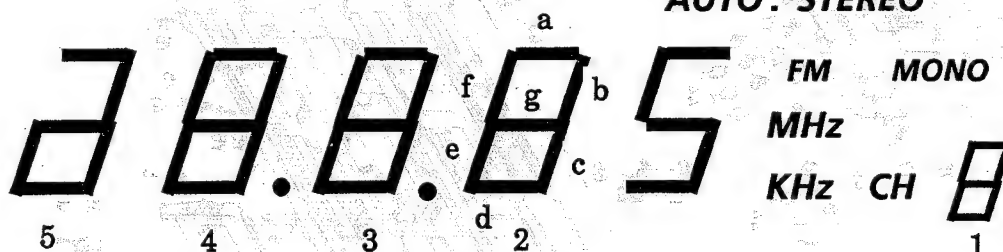


DISPLAY (LCD) PIN DESCRIPTION

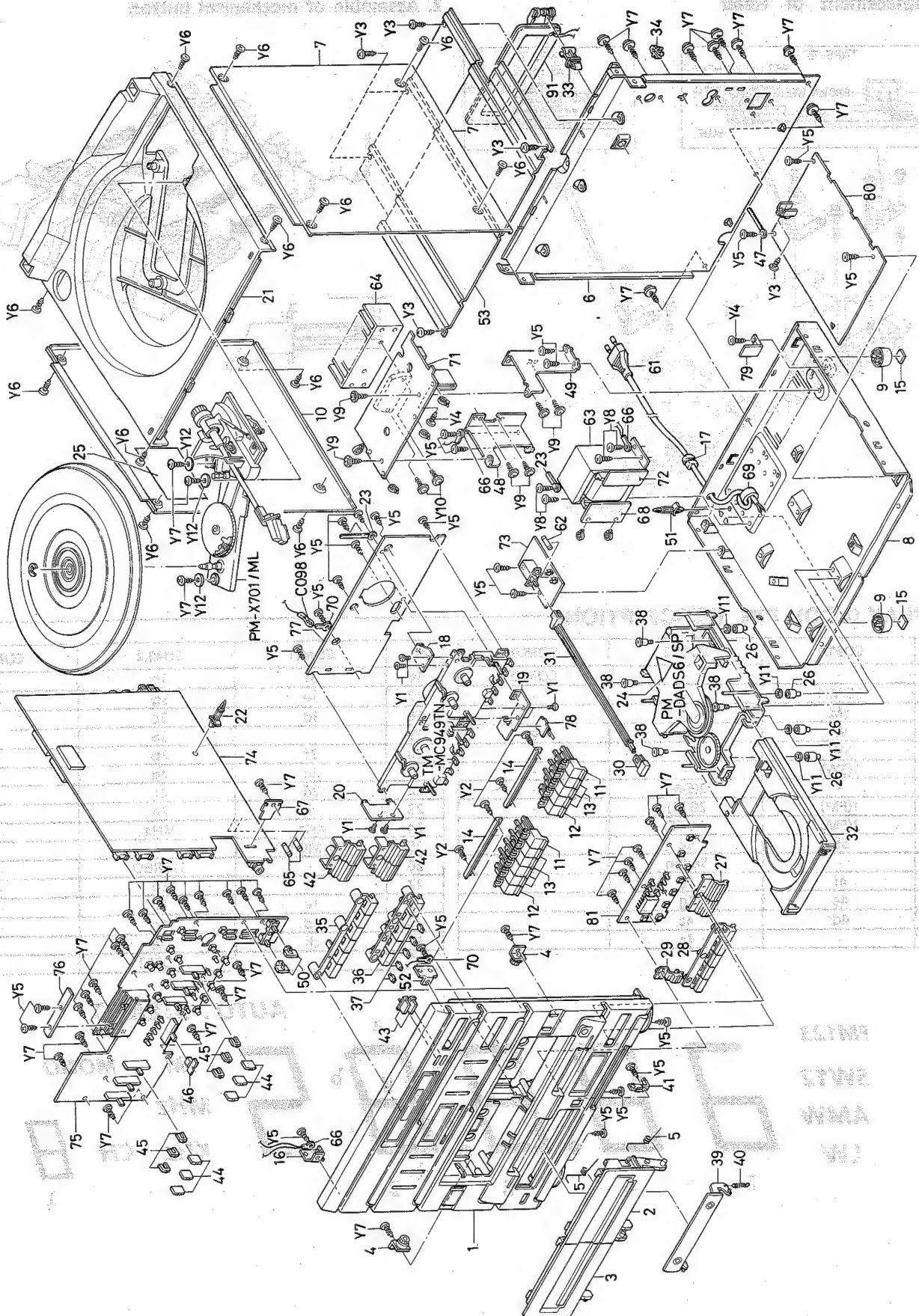
No.	COM.1	COM.2	COM.0
1	-	-	COM.0
2	COM.1	-	-
3	FM	LW	-
4	W	A	M
5	SW	-	-
6	1(SW)	-	-
7	-	2(SW)	-
8	1(FM)	2(FM)	-
9	3(FM)	AUTO	-
10	5b	5c	-
11	-	5adeg	-
12	4f	4b	-
13	4e	4g	-
14	4d	4c	-
15	-	4a	-

No.	COM.1	COM.2	COM.0
16	3f	3b	-
17	3e	3g	-
18	3d	3c	-
19	-	3a	-
20	2f	2b	-
21	2e	2g	-
22	2d	2c	-
23	5	2a	-
24	KHz	MHz	-
25	FM MONO	-	-
26	-	STEREO	-
27	1f	1b	-
28	1e	1g	-
29	1d	1c	-
30	ch	1a	-
31	-	COM2	-

FM123
SW12
AMW
LW



EXPLODED VIEW (CABINET & CHASSIS)



PARTS LIST

PRODUCT SAFETY NOTICE

Each precaution in this manual should be followed during servicing. Components identified with the IEC symbol Δ in the parts list and the schematic diagram designate components in which safety can be of special significance. When replacing a component identified with Δ , use only the replacement parts designated, or parts with the same ratings of resistance, wattage or voltage that are designated in the parts list in this manual.

Leakage-current or resistance measurements must be made to determine that exposed parts are acceptably insulated from the supply circuit before returning the product to the customer.

CAUTION: Regular type resistors and capacitors are not listed. To know those values, refer to the schematic diagram.

PACKING & ACCESSORIES

Ref. No.	Part No.	Description
	614 231 7624	INNER CARTON
	614 207 8181	PAD, TOP
	614 221 0659	PAD, BOTTOM
	614 231 6672	POLY COVER, SET
	614 176 2685	INNER POLYE COVER, INST-M.
	614 176 3712	INNER POLYE COVER, TURN TABLE SHEET
	614 180 4644	PROTECTOR SHEET, SET
	614 231 7679	INSTRUCTION MANUAL
	614 231 6832	LABEL, SAFETY, CLASS
	614 224 3497	LABEL, NEEDLE
	614 189 3778	CAUTION LABEL
	614 219 8223	ASSY, COVER, DUST, TURN TABLE
	614 106 8749	VINYL SASH, ARM REST
	614 231 5699	TAPE, 10X100, CARTRIDGE COVER
	614 112 3479	HINGE, L
	614 112 3486	HINGE, R
	614 234 1056	ASSY. SHEET, TURNTABLE
or	614 234 3692	ASSY. SHEET, TURNTABLE
	614 023 7344	ANT, FM

CABINET & CHASSIS

Ref. No.	Part No.	Description
1	614 230 0596	ASSY, PANEL, FRONT
2	614 221 6606	ASSY, LID, CASSETTE, TAPE A
3	614 230 0572	ASSY, LID, CASSETTE, TAPE B
4	614 069 0385	GEAR ASSY, DUMPER
5	614 218 0051	SPRING, WIRE, CASSETTE LID
6	614 231 9260	PANEL, REAR
7	614 230 5102	PANEL, SIDE, R
8	614 224 4166	CABINET, BOTTOM
9	614 207 2387	FOOT, REAR
10	614 230 5119	PANEL, SIDE, L
11	614 230 5126	KNOB, LEVER, PAUSE
12	614 230 5133	KNOB, LEVER, REC-PLAY(TAPE A)
13	614 230 5140	KNOB, LEVER, REW-F.FWD-STOP/EJECT-PLAY(TAPE B)
14	614 194 9239	BRACKET, MECHANISM BUTTON
15	614 106 4215	STAND, REAR
16	614 221 1373	BRACKET-M, FRONT (L)
17	614 129 1901	FIXER, AC CORD
18	614 216 9247	BRACKET-E, MECHA. PCB
19	614 216 9254	BRACKET-E, MECHA. PCB
20	614 216 9230	BRACKET-E, MECHA. PCB
21	614 229 2372	PANEL, TOP
22	614 129 5534	FIXER, TUNER PCB
23	614 130 0382	LUG, CD PCB
24	614 224 3695	LABEL, SAFETY, LASER BEAM
25	614 191 3698	CAUTION LABEL, LASER BEAM
26	614 195 6978	RUBBER CUSHION, CD FLOATING
27	614 220 6836	BUTTON, CD PLAY/PAUSE-STOP
28	614 230 5157	BUTTON, CD FUNCTION
29	614 220 6850	BUTTON, CD EJECT
30	614 220 6874	BUTTON, POWER
31	614 112 7231	JOINT, POWER
32	614 221 1410	TABLE, LOADING, CD TRAY
33	614 108 0307	BRACKET, LOOP ANT
34	614 108 1076	BRACKET, ANT, LEAD
35	614 230 5171	BUTTON, TUNER PRESET

Ref. No.	Part No.	Description
36	614 230 5164	BUTTON, FUNCTION
37	614 221 0222	WINDOW, FUNCTION, LED
38	412 004 5705	SPECIAL SCREW, CD
39	614 230 0671	DOOR, CD FRONT
40	614 221 0246	SPRING, TENS, CD DOOR
41	614 220 6928	BRACKET-M, CD DOOR
42	614 220 6829	BUTTON, TUNING-VOLUME
43	614 220 6843	BUTTON, TUNER BAND-TUNING/FM
44	614 220 6737	KNOB, SLIDE, G.EQ
45	614 220 6690	WINDOW, G.EQ, LED
46	614 220 6744	KNOB, SLIDE, BALANCE
47	614 129 9136	LUG, DECK PCB
48	614 208 9262	BRACKET-E, HEAT SINK, L
49	614 208 9279	BRACKET-E, HEAT SINK, R
50	614 220 6881	BUTTON, DOLBY-DUB. SPEED
51	614 129 5527	FIXER, BOTTOM
	614 129 2496	FIXER, LEAD
or	614 129 4971	FIXER, LEAD
	614 208 0986	CUSHION 10X40, MOTOR LEAD
52	614 221 1816	BRACKET-M, FRONT(R)
53	614 222 1266	SHIELD, TU

FIXING PARTS

Ref. No.	Part No.	Description
Y1	411 022 7500	SCR S-TPG PAN 2X4
Y2	411 021 3107	SCR S-TPG BIN 2.6X8
Y3	411 001 1901	SCR S-TPG BIN 3X6
Y4	411 027 3101	SCR S-TPG BIN 3X8
Y5	411 021 6405	SCR S-TPG BIN 3X8
Y6	411 021 6603	SCR S-TPG BIN 3X8
Y7	411 021 3503	SCR S-TPG BIN 3X10
Y8	411 001 4209	SCR S-TPG BIN 4X8
Y9	411 020 8905	SCR S-TPG BRZ + FLG 3X10
Y10	411 020 9506	SCR S-TPG BRZ + FLG 3X16
Y11	411 087 8108	WASHER V 3X8X0.5
Y12	411 092 3303	WASHER Z 3X12X1

ELECTRICAL PARTS

Ref. No.	Part No.	Description
61	Δ 614 023 3100	POWER CORD, AC
or	Δ 614 023 3418	POWER CORD, AC
or	Δ 614 203 0493	POWER CORD, AC
62	Δ 423 016 9605	FUSE 250V 0.4A, F901
63	Δ 614 229 8206	POWER TRANS
64	Δ 614 221 4909	HEAT SINK
65	Δ 423 017 0106	FUSE 250V 1.6A, F701-801
66	614 051 9808	LUG, CD GND
67	614 231 6481	PCB, HP STOPPER
68	Δ 614 230 7717	PCB, P.T. PRIMARY
	614 218 6459	ASSY, CONNECTOR-S, 3P W/LEAD, AUTO TAPE SELECTOR SW (MECHA.)
	614 218 6442	ASSY, CONNECTOR-S, 6P W/LEAD, MECHA.
	403 135 5801	ELECT 0.1U M 50V, C010
69	614 210 1308	CORE
or	614 129 9037	CORE
70	614 051 9785	LUG, FRONT PCB
91	614 214 5180	LOOP ANT ASSY
C098	403 001 1906	CERAMIC 0.01U M

PARTS LIST

MAIN AMPLIFIER P.C.BOARD ASSY

Ref. No.	Part No.	Description
1	614 232 8057	ASSY, PCB, MAIN AMP
	614 203 7362	HEAT SINK, FOR IC903
	614 224 3527	ASSY, CONNECTOR-S, 3P, SP OUT (CN913)
IN911	614 020 6555	SOCKET, 3P, IC REG
IN912	614 216 5249	SOCKET, 10P (B TO B) TUN & PRE
IN913	614 020 1222	SOCKET, 3P, SP OUT
IN914	614 020 1246	SOCKET, 5P, P.T SEC
C710	△ 409 101 8302	IC STK4112MK2
C903	△ 409 168 2107	IC UPC7812HF
or	△ 409 001 7603	IC AN7812F
901	405 015 1606	TR 2SC2655-Y
902	405 001 9302	TR 2SA1020-Y
903	405 011 8609	TR 2SC1740S-S
or	405 012 2002	TR 2SC1815-GR
or	405 020 7204	TR 2SC945A-K
901	△ 407 107 6001	DIODE RL203-BD80
902	△ 407 107 6001	DIODE RL203-BD80
903	△ 407 107 6001	DIODE RL203-BD80
904	△ 407 107 6001	DIODE RL203-BD80
905	407 004 9105	DIODE DSF10C
906	407 004 9105	DIODE DSF10C
907	407 004 9105	DIODE DSF10C
908	407 004 9105	DIODE DSF10C
909	△ 407 053 3208	ZENER DIODE MTZ12B
910	△ 407 053 3208	ZENER DIODE MTZ12B
911	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
912	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
901	403 057 3800	POLYESTER 0.1U M 50V
902	403 057 3800	POLYESTER 0.1U M 50V
903	403 057 3800	POLYESTER 0.1U M 50V
904	403 053 4405	ELECT 2200U M 35V
905	403 053 4405	ELECT 2200U M 35V
906	403 053 4405	ELECT 2200U M 35V
R757	401 008 7204	CARBON 2.2K JB 1/2W, FLAME PROOF
R857	401 008 7204	CARBON 2.2K JB 1/2W, FLAME PROOF
R901	△ 402 044 6701	RESISTOR 0.47 J- 1/2W
R902	△ 402 004 4303	FUSIBLE RES 10 J- 1/4W
R903	△ 402 004 4303	FUSIBLE RES 10 J- 1/4W
R914	△ 402 023 1703	FUSIBLE RES 100 J- 1/4W
R915	△ 402 023 1703	FUSIBLE RES 100 J- 1/4W

1.T SECONDARY P.C.BOARD ASSY

Ref. No.	Part No.	Description
72	614 232 8071	ASSY, PCB, P.T SEC
	614 231 0205	SOCKET, 3P W/LEAD, CD (CN916)
IN915	614 020 1246	SOCKET, 5P, MAIN AMP
IN916	614 020 6555	SOCKET, 3P, CD
C901	△ 614 205 2914	IC PROTECTOR ICP-N25
C902	△ 614 205 2914	IC PROTECTOR ICP-N25

POWER SWITCH P.C.BOARD ASSY

Ref. No.	Part No.	Description
73	614 232 8095	ASSY, PCB, POWER SW
	△ 614 017 8203	TERMINAL BOARD, AC-IN
	△ 614 208 4540	FUSE HOLDER
	△ 614 086 2164	COVER, FOR C999
901	△ 614 018 8967	SWITCH, POWER
999	△ 404 000 1607	CERAMIC 0.01U F 400V
or	△ 404 033 3401	CERAMIC 0.01U Z

TUNER & PRE-AMPLIFIER P.C.BOARD ASSY

Ref. No.	Part No.	Description
74	614 232 8125	ASSY, PCB, TUN & PRE-AMP
	614 208 4540	FUSE HOLDER, FOR F701-801
	614 116 5349	SHIELD PLATE, PARTS SIDE, FM-RF
	614 117 1029	SHIELD PLATE, SOLDER SIDE, FM-RF
	614 210 4675	FILTER, 459KHZ (X204-205 PAIR)
	614 218 2840	TERMINAL, FM ANT (JK1)
	614 035 2702	SOCKET, VIDEO (CN706)
	614 218 0068	TERMINAL, 4P, SPEAKER
	614 035 1712	SOCKET, W/SWITCH, HEADPHONES (CN714)
	614 223 0756	ASSY, CONNECTOR-S, 5P W/LEAD, PHONO (CN704)
	614 226 4089	SHIELD
CT101	614 007 3683	TRIMMER, 8PF (BK)
CT151	614 007 6356	TRIMMER, 11PF (WH)
CT152	614 007 6356	TRIMMER, 11PF (WH)
CT153	614 007 6332	TRIMMER, 30PF (GR)
CT154	614 007 6332	TRIMMER, 30PF (GR)
T101	614 028 6922	FILTER
T201	614 030 3476	I.F.T, 10.7MHZ, FM
T202	614 030 4114	I.F.T, 10.7MHZ, FM
T204	614 029 3906	MX COIL
T301	614 027 7485	CHOCK
T302	614 027 7485	CHOCK
L101	614 034 9870	VHF COIL, FM
L102	614 034 9887	VHF COIL, FM
L103	614 028 4058	FILTER, FM
L104	614 035 0036	VHF COIL, FM
L105	614 034 8286	VHF COIL
L121	614 034 7135	VHF COIL
L122	614 034 7135	VHF COIL
L151	614 033 8904	O.S.C COIL, MW
L152	614 197 4002	ANT COIL, MW
L153	614 034 1003	O.S.C COIL, LW
L154	614 197 3975	ANT COIL, LW
L155	614 028 4379	FILTER, 1MH, AM
X201	614 030 5128	I.F FILTER, FM
X202	614 030 5128	I.F FILTER, FM
X203	614 030 5128	I.F FILTER
X204	614 030 7443	I.F FILTER, 459KHZ, AM
X205	614 211 2939	FILTER, 459KHZ, AM
SVR201	614 003 3267	SEMI-FIXED VR, 20K OHM (B)
or	614 006 9693	SEMI-FIXED VR, 20K OHM (B)
SVR202	614 003 3250	SEMI-FIXED VR, 10K OHM (B)
or	614 006 9686	SEMI-FIXED VR, 10K OHM (B)
SVR302	614 003 3250	SEMI-FIXED VR, 10K OHM (B)
or	614 006 9686	SEMI-FIXED VR, 10K OHM (B)
CN701	614 035 4935	SOCKET, 4P, CD
CN702	614 017 2102	PLUG, 3P, CD
CN703	614 020 6623	SOCKET, 10P, DECK
CN704	614 020 1246	SOCKET, 5P, PHONO
CN707	614 216 5157	PLUG, 10P, MAIN AMP
CN716	614 017 1440	PLUG, 3P, MAIN AMP
CN717	614 208 2348	SOCKET, 7P (B TO B), FRONT 3
CN718	614 208 2379	SOCKET, 10P (B TO B), FRONT 1
CN719	614 208 2331	SOCKET, 6P (B TO B), FRONT 2
CN720	614 208 2355	SOCKET, 8P (B TO B), FRONT 4
IC201	409 016 2204	IC LA1265S
IC301	409 016 9500	IC LA3361
IC402	409 154 0209	IC TC9172AP
IC701	409 018 4909	IC LA6458S
IC702	409 022 3608	IC LC7818
IC705	409 053 0409	IC TC9153AP
IC706	409 018 4305	IC LA6458D
IC711	409 018 4909	IC LA6458S
Q101	405 092 5702	TR 2SK606-Q
Q102	405 012 5904	TR 2SC1923-Y
Q103	405 012 5904	TR 2SC1923-Y
Q104	405 012 5904	TR 2SC1923-Y
Q105	405 092 5702	TR 2SK606-Q
Q151	405 016 2206	TR 2SK83-R2
or	405 016 2305	TR 2SC2878-B
Q152	405 016 2206	TR 2SC2878-A

PARTS LIST

Ref. No.	Part No.	Description
or	4 05 016 2305	TR 2SC2878-B
Q153	4 05 016 2206	TR 2SC2878-A
or	4 05 016 2305	TR 2SC2878-B
Q154	4 05 016 2206	TR 2SC2878-A
Q154	4 05 016 2305	TR 2SC2878-B
Q155	4 05 016 2206	TR 2SC2878-A
or	4 05 016 2305	TR 2SC2878-B
Q157	4 05 012 2002	TR 2SC1815-GR
or	4 05 020 7204	TR 2SC945A-K
Q158	4 05 078 5405	TR 2SK301-R
Q201	4 05 018 7902	TR 2SC380TM-O
Q202	4 05 012 2002	TR 2SC1815-GR
or	4 05 020 7204	TR 2SC945A-K
Q301	4 05 012 2002	TR 2SC1815-GR
Q302	4 05 012 2002	TR 2SC1815-GR
Q303	4 05 016 2206	TR 2SC2878-A
or	4 05 016 2305	TR 2SC2878-B
Q304	4 05 016 2206	TR 2SC2878-A
or	4 05 016 2305	TR 2SC2878-B
Q351	4 05 001 7001	TR 2SA1015-GR
Q352	4 05 012 2002	TR 2SC1815-GR
or	4 05 020 7204	TR 2SC945A-K
Q354	4 05 012 2002	TR 2SC1815-GR
or	4 05 020 7204	TR 2SC945A-K
Q355	4 05 001 7001	TR 2SA1015-GR
Q357	4 05 012 2002	TR 2SC1815-GR
or	4 05 020 7204	TR 2SC945A-K
Q358	4 05 001 7001	TR 2SA1015-GR
Q361	4 05 001 7001	TR 2SA1015-GR
Q370	4 05 001 7001	TR 2SA1015-GR
Q371	4 05 012 2002	TR 2SC1815-GR
or	4 05 020 7204	TR 2SC945A-K
Q372	4 05 001 7001	TR 2SA1015-GR
Q402	4 05 078 4903	TR 2SC2634-R
Q403	4 05 078 4903	TR 2SC2634-R
Q704	4 05 011 8609	TR 2SC1740S-S
or	4 05 012 2002	TR 2SC1815-GR
or	4 05 020 7204	TR 2SC945A-K
Q705	4 05 011 8609	TR 2SC1740S-S
or	4 05 012 2002	TR 2SC1815-GR
or	4 05 020 7204	TR 2SC945A-K
Q804	4 05 011 8609	TR 2SC1740S-S
or	4 05 012 2002	TR 2SC1815-GR
or	4 05 020 7204	TR 2SC945A-K
Q805	4 05 011 8609	TR 2SC1740S-S
or	4 05 012 2002	TR 2SC1815-GR
or	4 05 020 7204	TR 2SC945A-K
Q904	4 05 011 8609	TR 2SC1740S-S
or	4 05 012 2002	TR 2SC1815-GR
or	4 05 020 7204	TR 2SC945A-K
Q905	4 05 011 8609	TR 2SC1740S-S
or	4 05 012 2002	TR 2SC1815-GR
or	4 05 020 7204	TR 2SC945A-K
Q906	4 05 001 7001	TR 2SA1015-GR
D101	4 07 105 0100	VARACTOR DI SVC211-B-AL
D102	4 07 105 0100	VARACTOR DI SVC211-B-AL
D103	4 07 105 0100	VARACTOR DI SVC211-B-AL
D104	4 07 012 5809	DIODE 1SS176
or	4 07 007 9904	DIODE GMA01
or	4 07 012 4406	DIODE 1SS133
D151	4 07 091 5004	VARACTOR DI SVC321SPA-C-2
D152	4 07 091 5004	VARACTOR DI SVC321SPA-C-2
D201	4 07 012 5809	DIODE 1SS176
or	4 07 007 9904	DIODE GMA01
or	4 07 012 4406	DIODE 1SS133
D301	4 07 012 5809	DIODE 1SS176
or	4 07 007 9904	DIODE GMA01
or	4 07 012 4406	DIODE 1SS133
D302	4 07 005 4505	DIODE DS442X
or	4 07 013 1701	DIODE 1S1588
or	4 07 013 7109	DIODE 1S2473
D351	4 07 012 5809	DIODE 1SS176
or	4 07 007 9904	DIODE GMA01
or	4 07 012 4406	DIODE 1SS133

Ref. No.	Part No.	Description
D352	4 07 053 8807	ZENER DIODE MTZ9.1B
D401	4 07 012 5809	DIODE 1SS176
or	4 07 007 9904	DIODE GMA01
or	4 07 012 4406	DIODE 1SS133
D430	4 07 053 6704	ZENER DIODE MTZ5.6B
D913	4 07 007 9904	DIODE GMA01
or	4 07 012 4406	DIODE 1SS133
D914	4 07 007 9904	DIODE GMA01
D914	4 07 012 4406	DIODE 1SS133
D915	4 07 007 9904	DIODE GMA01
or	4 07 012 4406	DIODE 1SS133
D916	4 07 007 9904	DIODE GMA01
or	4 07 012 4406	DIODE 1SS133
D917	4 07 007 9904	DIODE GMA01
or	4 07 012 4406	DIODE 1SS133
D918	4 07 007 9904	DIODE GMA01
or	4 07 012 4406	DIODE 1SS133
D919	4 07 007 9904	DIODE GMA01
or	4 07 012 4406	DIODE 1SS133
D920	4 07 007 9904	DIODE GMA01
or	4 07 012 4406	DIODE 1SS133
D921	4 07 007 9904	DIODE GMA01
or	4 07 012 4406	DIODE 1SS133
D922	4 07 007 9904	DIODE GMA01
or	4 07 012 4406	DIODE 1SS133
D923	4 07 053 7107	ZENER DIODE MTZ6.2B
D924	4 07 007 9904	DIODE GMA01
or	4 07 012 4406	DIODE 1SS133
D925	4 07 007 9904	DIODE GMA01
or	4 07 012 4406	DIODE 1SS133
D926	4 07 007 9904	DIODE GMA01
or	4 07 012 4406	DIODE 1SS133
D927	4 07 007 9904	DIODE GMA01
or	4 07 012 4406	DIODE 1SS133
D950	4 07 007 9904	DIODE GMA01
or	4 07 012 4406	DIODE 1SS133
C051	4 03 062 5103	POLYESTER 5600P K 50V
C052	4 03 062 5103	POLYESTER 5600P K 50V
C053	4 03 062 5103	POLYESTER 5600P K 50V
C054	4 03 062 5103	POLYESTER 5600P K 50V
C154	4 03 082 2205	POLYPRO 560P J 100V
C155	4 03 082 2007	POLYPRO 510P J 100V
C157	4 03 033 3206	CERAMIC 82P J 50V
C306	4 03 080 5000	POLYPRO 1000P J 100V
C407	4 03 106 1603	NP-ELECT. 1U Q 50V
C734	4 03 057 3800	POLYESTER 0.1U M 50V
C735	4 03 057 3800	POLYESTER 0.1U M 50V
C834	4 03 057 3800	POLYESTER 0.1U M 50V
C835	4 03 057 3800	POLYESTER 0.1U M 50V
C934	4 03 040 0403	ELECT 1000U M 10V
R380	△ 4 01 018 1209	CARBON 33 JB 1/4W, FLAME PROOF
R743	△ 4 01 010 5601	CARBON 5.6 JB 1/2W, FLAME PROOF
R744	△ 4 01 009 5506	CARBON 330 JB 1/2W, FLAME PROOF
R843	△ 4 01 010 5601	CARBON 5.6 JB 1/2W, FLAME PROOF
R844	△ 4 01 009 5506	CARBON 330 JB 1/2W, FLAME PROOF

FRONT P.C.BOARD ASSY

Ref. No.	Part No.	Description
75	614 232 8149	ASSY, PCB, FRONT
	614 216 9285	MOUNT-E, LCD
	614 220 3651	SHEET, LCD
	614 112 2328	DOUBLE FACE, 3X60, LCD
	614 221 2431	SWITCH, PUSH, DOLBY
		DUB SPEED
or	614 107 0971	TAPE, 9X100, LCD
A401	614 217 2612	LCD (LIQUID CRYSTAL DISPLAY)
X401	614 008 0063	CRYSTAL, 7.2MHZ

PARTS LIST

Ref. No.	Part No.	Description
or	614 204 0317	CRYSTAL, 7.2MHZ
S401	614 220 5655	SWITCH, TACT, TUNING +
S402	614 220 5655	SWITCH, TACT, TUNING -
S403	614 220 5655	SWITCH, TACT, BAND
S404	614 220 5655	SWITCH, TACT, TUNING/FM MODE
S405	614 220 5655	SWITCH, TACT, PRESET (P1)
S406	614 220 5655	SWITCH, TACT, PRESET (P2)
S407	614 220 5655	SWITCH, TACT, PRESET (P3)
S408	614 220 5655	SWITCH, TACT, PRESET (P4)
S409	614 220 5655	SWITCH, TACT, PRESET (P5)
S410	614 220 5655	SWITCH, TACT, PRESET (P6)
S902	614 220 5655	SWITCH, TACT, PHONO
S903	614 220 5655	SWITCH, TACT, VIDEO
S904	614 220 5655	SWITCH, TACT, TUNER
S905	614 220 5655	SWITCH, TACT, TAPE
S906	614 220 5655	SWITCH, TACT, CD
S907	614 220 5655	SWITCH, TACT, VOLUME +
S908	614 220 5655	SWITCH, TACT, VOLUME -
VR701	614 221 4756	VR, SLIDE, G.EQ, LEFT (100KHZ)
VR703	614 221 4756	VR, SLIDE, G.EQ, LEFT (1KHZ)
VR705	614 221 4756	VR, SLIDE, G.EQ, LEFT (12KHZ)
VR706	614 003 5766	V.R., BALANCE (VR706-806)
VR801	614 221 4756	VR, SLIDE, G.EQ, RIGHT (100KHZ)
VR803	614 221 4756	VR, SLIDE, G.EQ, RIGHT (1KHZ)
VR805	614 221 4756	VR, SLIDE, G.EQ, RIGHT (12KHZ)
CN401	614 035 4911	SOCKET, 2P, LCD LAMP (CN907)
CN901	614 208 2249	PLUG, 6P (B TO B), TUN & PRE 2
CN902	614 208 2263	PLUG, 8P (B TO B), TUN & PRE 4
CN903	614 208 2256	PLUG, 7P (B TO B), TUN & PRE 3
CN904	614 208 2287	PLUG, 10P (B TO B), TUN & PRE 1
CN909	614 020 6586	SOCKET, 6P, DECK
IC401	410 064 8407	IC TC9306F-045 BS
IC707	409 020 2900	IC LB1433N
Q703	405 011 8609	TR 2SC1740S-S
or	405 012 2002	TR 2SC1815-GR
or	405 020 7204	TR 2SC945A-K
Q803	405 011 8609	TR 2SC1740S-S
or	405 012 2002	TR 2SC1815-GR
or	405 020 7204	TR 2SC945A-K
Q907	405 011 8609	TR 2SC1740S-S
or	405 012 2002	TR 2SC1815-GR
or	405 020 7204	TR 2SC945A-K
Q908	405 011 8609	TR 2SC1740S-S
or	405 012 2002	TR 2SC1815-GR
or	405 020 7204	TR 2SC945A-K
D402	407 012 5809	DIODE 1SS176
or	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D403	407 012 5809	DIODE 1SS176
or	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D405	407 012 5809	DIODE 1SS176
or	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D406	407 012 5809	DIODE 1SS176
or	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D407	407 012 5809	DIODE 1SS176
or	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D408	407 005 4505	DIODE DS442X
or	407 013 1701	DIODE 1S1588
or	407 013 7109	DIODE 1S2473
D409	407 005 4505	DIODE DS442X
or	407 013 1701	DIODE 1S1588
or	407 013 7109	DIODE 1S2473
D410	407 005 4505	DIODE DS442X
or	407 013 1701	DIODE 1S1588
or	407 013 7109	DIODE 1S2473
D411	407 005 4505	DIODE DS442X
or	407 013 1701	DIODE 1S1588
or	407 013 7109	DIODE 1S2473
D928	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133

Ref. No.	Part No.	Description
D929	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D933	408 008 9108	LED SLR-56VC70F130-N
D934	408 008 9108	LED SLR-56VC70F130-N
D935	408 008 9108	LED SLR-56VC70F130-N
D936	408 008 9108	LED SLR-56VC70F130-N
D937	408 008 9108	LED SLR-56VC70F130-N
D938	408 008 9108	LED SLR-56VC70F130-N
D939	408 008 9108	LED SLR-56VC70F130-N
D940	408 008 9108	LED SLR-56VC70F130-N
D941	408 008 9108	LED SLR-56VC70F130-N
D942	408 008 9108	LED SLR-56VC70F130-N
C401	403 019 0403	CERAMIC 24P J 50V
C402	403 019 0403	CERAMIC 24P J 50V
C410	403 196 9602	DL-ELECT 0.047F Z 5.5V

LCD LAMP (LED) P.C.BOARD ASSY

Ref. No.	Part No.	Description
76	614 232 8163	ASSY, PCB, LAMP
CN402	614 035 4911	SOCKET, 2P, FRONT
D441	407 129 1107	LED SLP-880A-51
D442	407 129 1107	LED SLP-880A-51
D443	407 129 1107	LED SLP-880A-51

DECK AMPLIFIER P.C.BOARD ASSY

Ref. No.	Part No.	Description
77	614 221 1700	ASSY, PCB, DECK AMP
	614 130 6926	TUBE, 20X2, FOR R981
L501	614 029 3807	MX COIL
L502	614 027 8545	CHOKE COIL
or	614 210 3685	INDUCTOR, FERITE
L511	614 202 8865	FILTER
L512	614 029 3142	MX COIL
L601	614 029 3807	MX COIL
L602	614 027 8545	CHOKE COIL
or	614 210 3685	INDUCTOR, FERITE
L611	614 202 8865	FILTER
L612	614 029 3142	MX COIL
L981	614 212 0804	TRANS, OSC
SVR1	614 204 1871	SEMI-FIXED VR, 20K OHM (B)
SVR501	614 003 6183	SEMI-FIXED VR, 10K OHM (B)
SVR502	614 003 6183	SEMI-FIXED VR, 10K OHM (B)
SVR503	614 003 6183	SEMI-FIXED VR, 10K OHM (B)
SVR504	614 003 6237	SEMI-FIXED VR, 200K OHM (B)
SVR601	614 003 6183	SEMI-FIXED VR, 10K OHM (B)
SVR602	614 003 6183	SEMI-FIXED VR, 10K OHM (B)
SVR603	614 003 6183	SEMI-FIXED VR, 10K OHM (B)
SVR604	614 003 6237	SEMI-FIXED VR, 200K OHM (B)
CN1	614 017 2102	PLUG, 3P, AUTO TEPE SELECTOR SW
CN2	614 017 2133	PLUG, 6P, MECHA SW
CN5	614 016 4084	PLUG, 2P, HIGH SPEED (TEST PIN)
CN6	614 020 8849	SOCKET, 3P, TAPE OUT (TEST PIN)
CN7	614 223 9223	SOCKET, 4P, MOTOR
CN8	614 223 9209	SOCKET, 2P, STOP SW
CN9	614 227 3623	ASSY, CONNECTOR-S, 4P W/LEAD, TAPE A HEAD
CN10	614 223 0336	ASSY, CONNECTOR-S, 7P W/LEAD, TAPE B HEAD
CN717	614 020 8863	SOCKET, 5P, FRONT
CN718	614 020 8900	SOCKET, 9P, TUN & PRE
IC1	409 020 9107	IC LC4069UB
or	409 051 3907	IC TC4069UBP
or	409 059 3206	IC UPD4069UBC
IC501	409 121 8702	IC LA3246
IC502	409 145 8405	IC UPC1330HA
IC521	409 016 8701	IC LA3220
IC551	409 119 9803	IC CXA1101P
Q1	405 001 7001	TR 2SA1015-GR
or	405 005 2002	TR 2SA733-P

PARTS LIST

Ref. No.	Part No.	Description
Q2	4 05 001 7001	TR 2SA1015-GR
or	4 05 005 2002	TR 2SA733-P
Q3	4 05 011 8609	TR 2SC1740S-S
or	4 05 012 2002	TR 2SC1815-GR
or	4 05 020 7204	TR 2SC945A-K
Q4	4 05 001 7001	TR 2SA1015-GR
or	4 05 005 2002	TR 2SA733-P
Q5	4 05 011 8609	TR 2SC1740S-S
or	4 05 012 2002	TR 2SC1815-GR
Q6	4 05 020 7204	TR 2SC945A-K
or	4 05 012 7403	TR 2SC2001-K
or	4 05 013 1301	TR 2SC2120-Y
Q8	4 05 011 8609	TR 2SC1740S-S
or	4 05 012 2002	TR 2SC1815-GR
or	4 05 020 7204	TR 2SC945A-K
Q9	4 05 011 8609	TR 2SC1740S-S
or	4 05 012 2002	TR 2SC1815-GR
or	4 05 020 7204	TR 2SC945A-K
Q10	4 05 012 2002	TR 2SC1815-GR
or	4 05 020 7204	TR 2SC945A-K
Q501	4 05 011 8609	TR 2SC1740S-S
or	4 05 012 2002	TR 2SC1815-GR
or	4 05 020 7204	TR 2SC945A-K
Q502	4 05 011 8609	TR 2SC1740S-S
or	4 05 012 2002	TR 2SC1815-GR
or	4 05 020 7204	TR 2SC945A-K
Q504	4 05 011 8609	TR 2SC1740S-S
or	4 05 012 2002	TR 2SC1815-GR
or	4 05 020 7204	TR 2SC945A-K
Q505	4 05 011 8609	TR 2SC1740S-S
or	4 05 012 2002	TR 2SC1815-GR
or	4 05 020 7204	TR 2SC945A-K
Q506	4 05 011 8609	TR 2SC1740S-S
or	4 05 012 2002	TR 2SC1815-GR
or	4 05 020 7204	TR 2SC945A-K
Q507	4 05 011 8609	TR 2SC1740S-S
or	4 05 012 2002	TR 2SC1815-GR
or	4 05 020 7204	TR 2SC945A-K
Q508	4 05 011 8609	TR 2SC1740S-S
or	4 05 012 2002	TR 2SC1815-GR
or	4 05 020 7204	TR 2SC945A-K
Q509	4 05 011 8609	TR 2SC1740S-S
or	4 05 012 2002	TR 2SC1815-GR
or	4 05 020 7204	TR 2SC945A-K
Q510	4 05 011 8609	TR 2SC1740S-S
or	4 05 012 2002	TR 2SC1815-GR
or	4 05 020 7204	TR 2SC945A-K
Q601	4 05 011 8609	TR 2SC1740S-S
or	4 05 012 2002	TR 2SC1815-GR
or	4 05 020 7204	TR 2SC945A-K
Q602	4 05 011 8609	TR 2SC1740S-S
or	4 05 012 2002	TR 2SC1815-GR
or	4 05 020 7204	TR 2SC945A-K
Q604	4 05 011 8609	TR 2SC1740S-S
or	4 05 012 2002	TR 2SC1815-GR
or	4 05 020 7204	TR 2SC945A-K
Q605	4 05 011 8609	TR 2SC1740S-S
or	4 05 012 2002	TR 2SC1815-GR
or	4 05 020 7204	TR 2SC945A-K
Q606	4 05 011 8609	TR 2SC1740S-S
or	4 05 012 2002	TR 2SC1815-GR
or	4 05 020 7204	TR 2SC945A-K
Q607	4 05 011 8609	TR 2SC1740S-S
or	4 05 012 2002	TR 2SC1815-GR
or	4 05 020 7204	TR 2SC945A-K
Q608	4 05 011 8609	TR 2SC1740S-S
or	4 05 012 2002	TR 2SC1815-GR
or	4 05 020 7204	TR 2SC945A-K
Q609	4 05 011 8609	TR 2SC1740S-S
or	4 05 012 2002	TR 2SC1815-GR
or	4 05 020 7204	TR 2SC945A-K
Q981	4 05 012 2002	TR 2SC1815-GR
or	4 05 020 7204	TR 2SC945A-K

Ref. No.	Part No.	Description
Q982	405 011 8609	TR 2SC1740S-S
or	405 012 2002	TR 2SC1815-GR
or	405 020 7204	TR 2SC945A-K
Q983	405 012 2002	TR 2SC1815-GR
or	405 020 7204	TR 2SC945A-K
Q984	405 011 8609	TR 2SC1740S-S
or	405 012 2002	TR 2SC1815-GR
Q984	405 020 7204	TR 2SC945A-K
Q985	405 011 1907	TR 2SC1627-Y
D1	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D2	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D3	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D4	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D5	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D6	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D7	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D8	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D9	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D10	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D11	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D12	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D13	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D14	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D15	407 005 4505	DIODE DS442X
or	407 013 7109	DIODE 1S2473
D16	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D17	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D18	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D19	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D501	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D502	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D601	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D602	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
C985	403 081 1209	POLYPRO 0.018U J 100V
R981	401 023 0709	CARBON 82 JA 1/4W

STOP SWITCH P.C.BOARD ASSY

Ref. No.	Part No.	Description
78	614 221 1717	ASSY, PCB, STOP SW
or	614 203 7911	SWITCH, STOP
CN58	614 223 9209	SOCKET, 2P, DECK

MOTOR IC REGULATOR P.C.BOARD ASSY

Ref. No.	Part No.	Description
79	614 232 8200	ASSY, PCB, IC REG
CN910	614 020 6555	SOCKET, 3P, MAIN-AMP
IC904	409 168 2107	IC UPC7812HF
or	409 001 7603	IC AN7812F

PARTS LIST

CD MAIN P.C.BOARD ASSY

Ref. No.	Part No.	Description
80	614 230 8639	ASSY, PCB, CD MAIN
or	614 121 5891	HEAT SINK, FOR IC1601
or	614 121 6829	HEAT SINK, FOR IC1601
or	614 016 3858	PLUG, 3P, TP12-18-14 (TEST PIN)
or	614 016 3865	PLUG, 4P, TP1-4 (TEST PIN)
or	614 211 2991	SOCKET, 3P W/LEAD, TUN & PRE (CN705)
T1101	614 194 3596	FILTER, RF COIL
T1102	614 194 3619	O.S.C COIL, PLL
L1401	614 028 4133	FILTER, 10UH
L1701	614 028 4256	FILTER, 100UH
X1301	614 215 5523	RESONATOR, 4.19MHZ
or	614 215 5561	RESONATOR, 4.19MHZ
X1401	614 215 5509	RESONATOR, 8.64MHZ
or	614 215 5547	RESONATOR, 8.64MHZ
SVR1102	614 223 1944	POTENTIOMETER, 100K OHM (B), T.BALANCE
SVR1104	614 223 1913	POTENTIOMETER, 20K OHM (B), T.OFFSET
CN705	614 020 1222	SOCKET, 3P, TUN & PRE (LINE OUT)
CN710	614 017 2102	PLUG, 3P, P.T SEC
CN715	614 035 5949	SOCKET, 3P, TUN & PRE
CN1001	614 017 2577	PLUG, 6P, PICK-UP SENSER
CN1002	614 220 2739	PLUG, 6P, PICK-UP ACTUATOR
CN1003	614 017 2553	PLUG, 4P, MOTOR
CN1004	614 017 2546	PLUG, 3P, MECHA SW
CN1007	614 035 5994	SOCKET, 8P, CD SW
CN1008	614 035 6007	SOCKET, 9P, CD SW
IC5	409 189 4203	IC M5278D05
or	409 224 2102	IC AN79N05
IC1101	409 124 6507	IC LA9200NM
IC1201	409 018 5500	IC LA6510
IC1202	409 018 5500	IC LA6510
IC1301	410 099 9608	IC CXP5046H-225S
IC1401	409 200 0702	IC LC7860KA
IC1402	409 123 7109	IC LC3517BS-15
or	409 209 0307	IC UM6116K-2
IC1501	409 136 7509	IC LC7881-C
IC1601	409 189 4203	IC M5278D05
IC1602	409 224 2102	IC AN79N05
Q1101	405 080 7107	TR DTA113ZS
Q1201	405 014 5209	TR 2SC2458GR
or	405 011 8500	TR 2SC1740S-R
or	405 011 8609	TR 2SC1740S-S
Q1202	405 014 5209	TR 2SC2458GR
or	405 011 8500	TR 2SC1740S-R
or	405 011 8609	TR 2SC1740S-S
Q1203	405 001 0309	TR RN1203
or	405 000 4407	TR DTC124ES
Q1206	405 033 6805	TR 2SD1468S-S
Q1207	405 014 5209	TR 2SC2458GR
or	405 011 8500	TR 2SC1740S-R
or	405 011 8609	TR 2SC1740S-S
Q1300	405 001 0309	TR RN1203
or	405 000 4407	TR DTC124ES
Q1301	405 014 5209	TR 2SC2458GR
or	405 011 8500	TR 2SC1740S-R
or	405 011 8609	TR 2SC1740S-S
Q1302	405 001 0309	TR RN1203
or	405 000 4407	TR DTC124ES
Q1303	405 014 5209	TR 2SC2458GR
or	405 011 8500	TR 2SC1740S-R
Q1323	405 014 5209	TR 2SC2458GR
or	405 011 8500	TR 2SC1740S-R
or	405 011 8609	TR 2SC1740S-S
Q1324	405 014 5209	TR 2SC2458GR
or	405 011 8500	TR 2SC1740S-R
or	405 011 8609	TR 2SC1740S-S
Q1325	405 002 1305	TR 2SA1048-Y
or	405 006 1806	TR 2SA933S-R
or	405 006 1905	TR 2SA933S-S

Ref. No.	Part No.	Description
Q1326	405 099 1004	TR 2SD592-S
or	405 099 7501	TR 2SD592-R
Q1327	405 099 0908	TR 2SB621-S
or	405 099 7303	TR 2SB621-R
Q1501	405 014 5209	TR 2SC2458GR
or	405 011 8500	TR 2SC1740S-R
or	405 011 8609	TR 2SC1740S-S
Q1502	405 014 5209	TR 2SC2458GR
or	405 011 8500	TR 2SC1740S-R
or	405 011 8609	TR 2SC1740S-S
Q1503	405 014 5209	TR 2SC2458GR
or	405 011 8500	TR 2SC1740S-R
or	405 011 8609	TR 2SC1740S-S
Q1504	405 014 5209	TR 2SC2458GR
or	405 011 8500	TR 2SC1740S-R
or	405 011 8609	TR 2SC1740S-S
Q1505	405 014 5209	TR 2SC2458GR
or	405 011 8500	TR 2SC1740S-R
or	405 011 8609	TR 2SC1740S-S
Q1602	405 001 0309	TR RN1203
or	405 000 4407	TR DTC124ES
D1101	407 105 0100	VARACTOR DI SVC211-B-AL
D1103	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D1104	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D1105	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D1106	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D1201	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D1202	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D1301	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D1314	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D1601	407 004 9105	DIODE DSF10C
or	407 012 3300	DIODE 1SR35-200A
D1602	407 004 9105	DIODE DSF10C
or	407 012 3300	DIODE 1SR35-200A
D1603	407 004 9105	DIODE DSF10C
or	407 012 3300	DIODE 1SR35-200A
D1604	407 004 9105	DIODE DSF10C
or	407 012 3300	DIODE 1SR35-200A
D1609	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D1610	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
C1117	403 067 6204	MT-COMPO 0.15U J 50V
C1133	403 080 5000	POLYPRO 1000P J 100V
C1235	403 154 2102	NP-ELECT 1U M 50V
C1507	403 062 5103	POLYESTER 5600P K 50V
C1508	403 062 5103	POLYESTER 5600P K 50V
C1511	403 056 7908	POLYESTER 1000P K 50V
C1512	403 056 7908	POLYESTER 1000P K 50V
C1606	403 043 3104	ELECT 2200U M 16V
C1607	403 043 3104	ELECT 2200U M 16V
R1601	402 044 7104	RESISTOR 0.68 J- 1/2W
R1602	402 044 7104	RESISTOR 0.68 J- 1/2W

CD SWITCH P.C.BOARD ASSY

Ref. No.	Part No.	Description
81	614 230 8653	ASSY, PCB, CD SW
S1701	614 220 5631	SWITCH, TACT, MEMORY
S1702	614 220 5631	SWITCH, TACT, PLAY/PAUSE
S1703	614 220 5631	SWITCH, TACT, OPEN/CLOSE
S1704	614 220 5631	SWITCH, TACT, REPEAT
S1705	614 220 5631	SWITCH, TACT, BACK
S1706	614 220 5631	SWITCH, TACT, FWD

PARTS LIST

Ref. No.	Part No.	Description
S1707	614 220 5 631	SWITCH, TACT, STOP
S1708	614 220 5 631	SWITCH, TACT, EDIT
CN1007	614 035 4 973	SOCKET, 8P, CD-MAIN
CN1008	614 035 4 980	SOCKET, 9P, CD-MAIN
Q1701	405 082 4 609	TR DTA123YS
Q1702	405 082 4 609	TR DTA123YS
Q1703	405 082 4 609	TR DTA123YS
D1701	407 081 5 106	LED SL-1283-20, 2-DIGIT 8-SEGMENT
D1702	407 007 9 904	DIODE GMA01
or	407 012 4 406	DIODE 1SS133
D1703	407 007 9 904	DIODE GMA01
or	407 012 4 406	DIODE 1SS133
D1704	408 011 8 709	LED SLR-56MC70F130-P, PLAY/PAUSE
or	408 012 1 808	LED SLR-56MC70F130-Q, PLAY/PAUSE
D1705	408 008 9 108	LED SLR-56VC70F130-N, REPEAT
or	408 008 9 207	LED SLR-56VC70F130-P, REPEAT
D1706	408 008 9 108	LED SLR-56VC70F130-N, PROG.
or	408 008 9 207	LED SLR-56VC70F130-P, PROG.
D1708	408 008 9 108	LED SLR-56VC70F130-N, EDIT
or	408 008 9 207	LED SLR-56VC70F130-P, EDIT
D1709	408 008 9 108	LED SLR-56VC70F130-N, SIDE-A
or	408 008 9 207	LED SLR-56VC70F130-P, SIDE-A
D1710	408 008 9 108	LED SLR-56VC70F130-N, SIDE-B
or	408 008 9 207	LED SLR-56VC70F130-P, SIDE-B

EXPLODED VIEW & PARTS LIST(TURN TABLE MECHANISM)

TURNTABLE MECHANISM (PM-X701/ML)

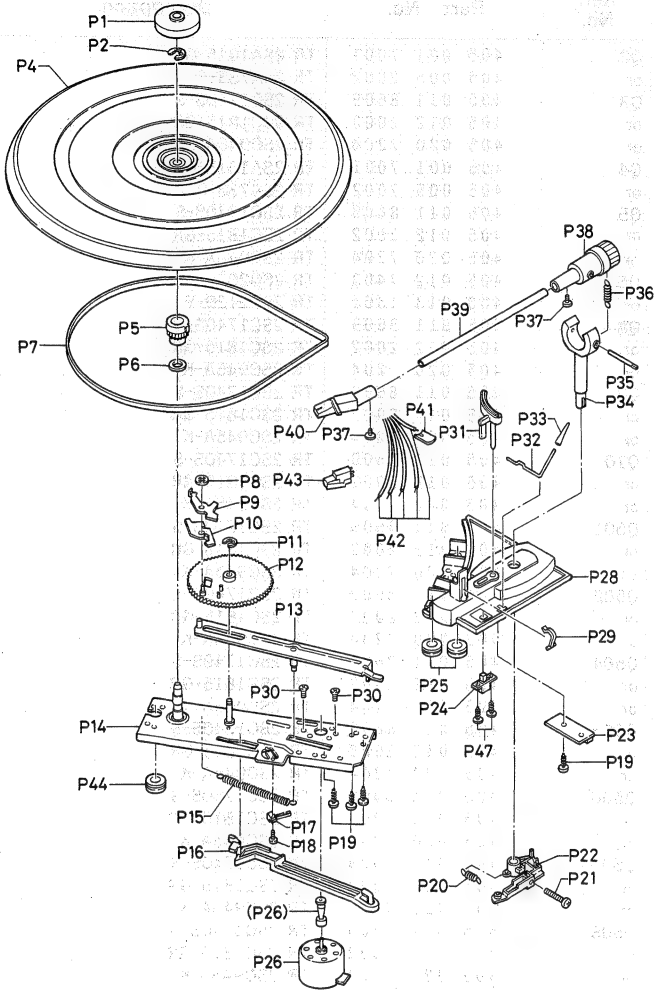
Ref. No.	Part No.	Description
P1	614 120 0118	SPACER, 45 ADAPTOR
P2	411 001 0508	RING E 6
P4	614 225 8866	TURNTABLE
P5	614 225 8835	GEAR, CENTER
P6	412 037 6700	SPECIAL WASHER, TURN TABLE
P7	614 225 8873	BELT, FLAT
P8	412 037 6809	SPECIAL WASHER
P9	614 225 8941	LEVER, TRIP POWL
P10	614 225 8958	LEVER, TRIP CLUTCH
P11	412 029 9702	SPECIAL WASHER
P12	614 225 8842	GEAR
P13	614 225 8248	ASSY, SLIDE
P14	614 225 8217	ASSY, CHASSIS
P15	614 201 8385	SPRING COIL
P16	614 225 8972	LEVER, TRIP LEVER
P17	614 202 0920	SWITCH
P18	411 022 7807	SCR S-TPG PAN 2X6
P19	411 023 4003	SCR S-TPG PAN 3X10
P20	614 225 9085	SPRING, TENS
P21	411 002 7209	SCR PAN 3X16
P22	614 225 8989	LEVER
P24	614 225 9146	SWITCH, SLIDE, 45/33
P25	614 225 8781	CUSHION, RUBBER
P26	614 225 8170	ASSY, MOTOR
P28	614 225 8590	CHASSIS
P29	614 225 8811	CLAMP, ARM ROCK
P30	412 037 1002	SPECIAL SCREW, MOTOR FIX
P31	614 225 8910	LIFTER
P32	614 225 9023	ROD, CUE
P33	614 225 8514	KNOB, CUE
P44	614 225 8774	CUSHION, RUBBER
P47	411 022 7807	SCR S-TPG PAN 2X6

PCB ASSY

Ref. No.	Part No.	Description
P23	614 225 8163	ASSY, PCB
	614 006 9655	VR
	614 016 8105	PLUG, 5P

TONE ARM ASSY

Ref. No.	Part No.	Description
P34	614 225 8224	ASSY, TONE ARM
P35	614 225 8798	HOLDER
P36	614 225 9078	SHAFT, PIVOT PIN
P37	411 022 9900	SPRING, TENS
P38	614 225 8743	SCR S-TPG PAN 2.3X5
P39	614 225 9054	SUPPORT, PIVOT
P40	614 225 8927	PIPE
P41	614 225 8729	HEAD SHELL
P42	614 225 8187	LUG
P43	614 225 8187	ASSY, WIRE
	614 213 4740	CARTRIDGE (MG2551)
	614 213 4757	STYLUS, ST-59U



EXPLODED VIEW & PARTS LIST(CD MECHANISM)

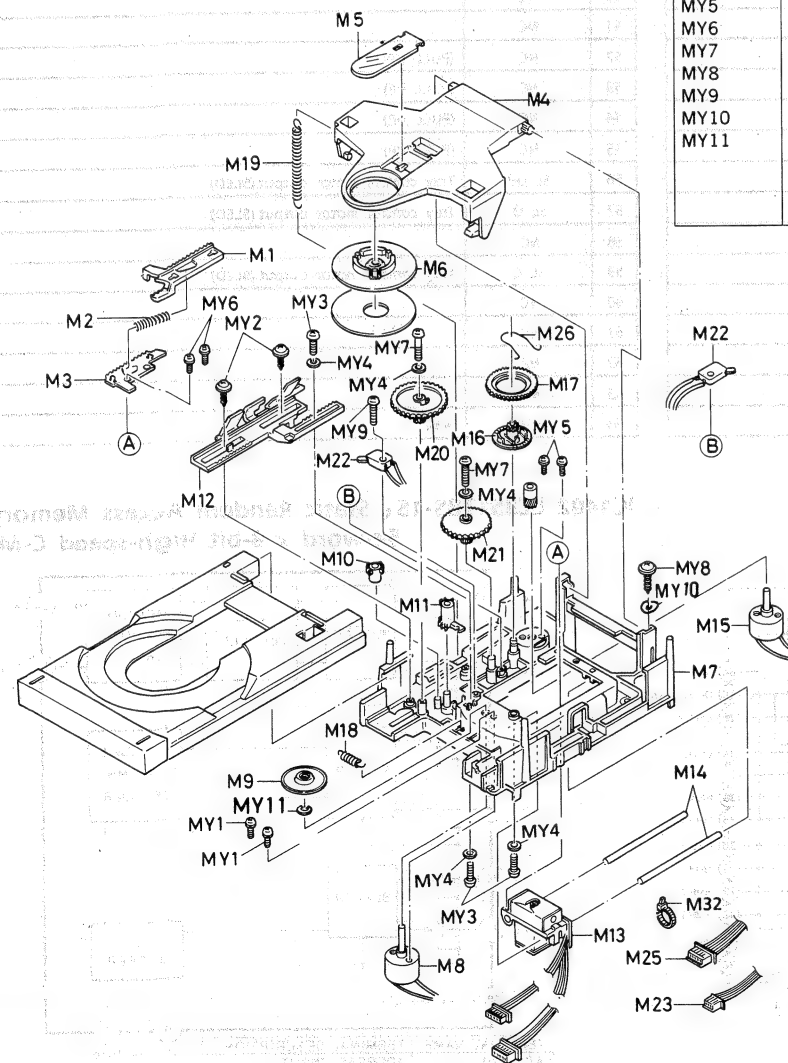
MECHANISM (PM-DADS6/SP)

Ref. No.	Part No.	Description
M1	614 216 9766	GEAR, PICK UP RACK UPPER
M2	614 216 9896	SPRING, COMP, RACK BACK
M3	614 216 9759	GEAR, PICK UP RACK LOWER
M4	614 216 9858	LEVER, CHUCK
M5	614 211 6654	SPRING PLATE, CHUCK
M6	614 219 0104	ASSY, PULLEY, CHUCK
M7	614 216 9728	CHASSIS
M8	614 045 2105	COMMUTATE MOTOR, SPINDLE
M9	614 216 9841	TURNABLE
M10	614 216 9742	GEAR, CHANGE SLIDE
M11	614 216 9810	GEAR, CHANGE RACK
M12	614 216 9865	SLIDE, DRIVING
M13	614 218 6855	PICKUP, LASER
M14	614 145 9622	SHAFT, PICK UP GUIDE
M15	614 217 7068	COMMUTATE MOTOR ASSY, SLED
M16	614 216 9797	GEAR, CLUTCH INNER
M17	614 216 9780	GEAR, CLUTCH OUTER

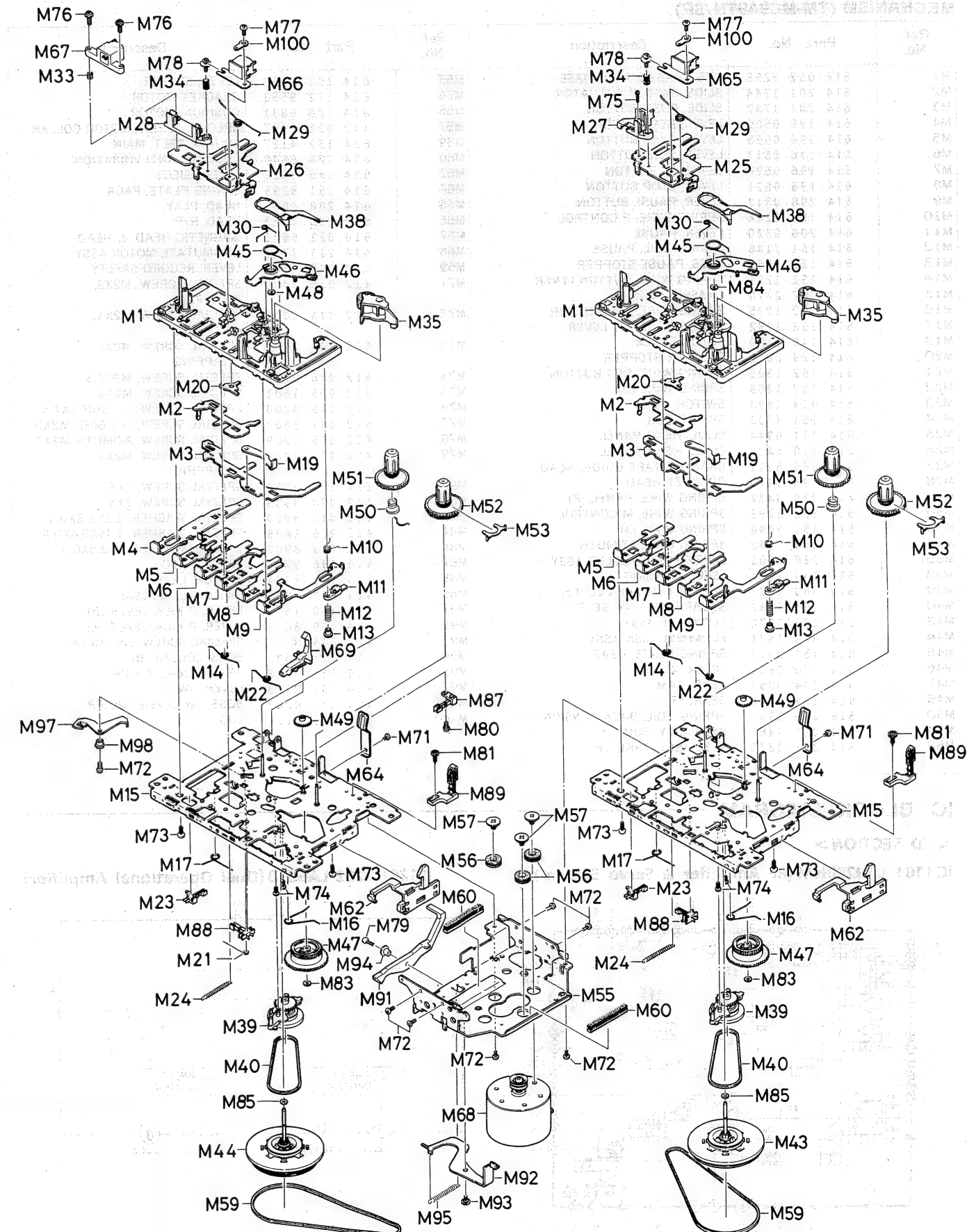
Ref. No.	Part No.	Description
M18	614 216 9889	SPRING, TENS
M19	614 223 2217	SPRING, TENS, CHUCK LEVER BACK
M20	614 216 9773	GEAR, TRAY SLED
M21	614 216 9803	GEAR, PICK UP SLED
M22	614 018 9223	SWITCH, LIMIT OR LOAD OUT
M23	614 224 3138	ASSY, CONNECTOR-S, 3P
M25	614 224 3145	ASSY, CONNECTOR-S, 4P
M26	614 216 9902	SPRING, WIRE, CLUTCH
M32	614 129 4971	FIXER, LEAD

FIXING PARTS (MECHANISM)

Ref. No.	Part No.	Description
MY2	411 020 9902	SCR S-TPG BRZ+FLG 3X8, SLIDE FIX
MY3	411 022 8408	SCR S-TPG PAN 2X8, SHAFT FIX
MY4	411 087 4704	WASHER V 2X6X0.4, SHAFT FIX
MY5	411 044 7205	SCR PAN+SW 2X4, MOTOR FIX
MY6	411 044 7502	SCR PAN+SW 2X5, RACK FIX
MY7	411 119 8908	SCR S-TPG PAN 2X14, GEAR FIX
MY8	411 020 9100	SCR, SPECIAL
MY9	411 104 4205	SCR TPG PAN PCS 1.7X8, SW FIX
MY10	411 092 2900	WASHER Z 3X10X1, LEVER FIX
MY11	412 032 0208	SPECIAL WASHER



EXPLODED VIEW (TAPE MECHANISM)



PARTS LIST (TAPE MECHANISM)

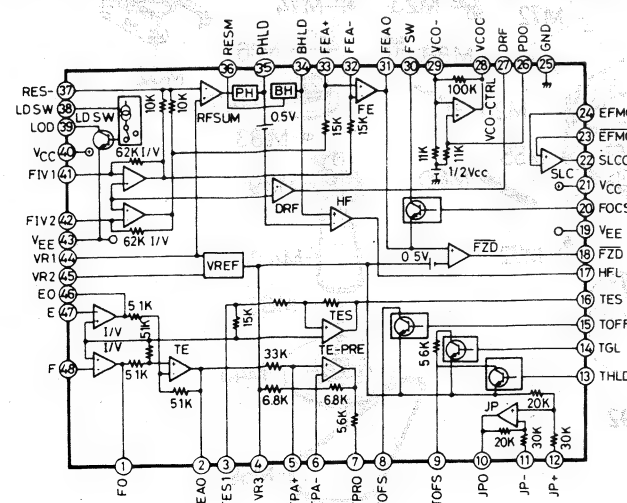
MECHANISM (TM-MC949TN/SP)

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
M1	614 067 3258	SUB CHASSIS ASSY, BASE	M53	614 195 5094	LEVER, SENSER
M2	614 201 1744	SLIDE, SWITCH ACTUATOR	M55	614 122 9553	BRACKET MOTOR
M3	614 201 1737	SLIDE, PUSH BUTTON	M56	614 126 6831	CUSHION, MOTOR
M4	614 196 0500	LEVER, REC BUTTON	M57	412 026 1907	SPECIAL SCREW, MOTOR COLLAR
M5	614 196 0555	LEVER, PLAY BUTTON	M59	614 133 4127	SQUARE BELT, MAIN
M6	614 196 0517	LEVER, REW BUTTON	M60	614 126 6848	CUSHION, ANTI VIBRATION
M7	614 196 0524	LEVER, FF BUTTON	M62	614 140 1522	LEVER, EJECT
M8	614 196 0531	LEVER, STOP BUTTON	M64	614 151 8299	SPRING PLATE, PACK
M9	614 208 0313	LEVER, PAUSE BUTTON	M65	614 208 4069	HEAD, PLAY
M10	614 152 1244	SPRING WIRE, P CONTROL	M66	614 208 4052	HEAD, R/P
M11	614 208 0320	LEVER, PAUSE	M67	614 021 8831	MAGNETIC HEAD, E. HEAD
M12	614 151 7186	SPRING COIL, PAUSE	M68	614 211 3752	COMMUTATE MOTOR ASSY
M13	614 129 0669	BOSS, PAUSE STOPPER	M69	614 140 1508	LEVER, RECORD SAFETY
M14	614 152 1251	SPRING WIRE, BUTTON LEVER	M71	412 026 1402	SPECIAL SCREW, M2X3, C TAPPING
M15	614 067 2770	CHASSIS ASSY	M72	412 026 2003	SPECIAL SCREW, M2X4, C TAPPING
M16	614 152 1275	SPRING WIRE, E ACTUATOR	M73	412 026 2201	SPECIAL SCREW, M2X5, P TAPPING
M17	614 152 1282	SPRING WIRE, P.S LEVER	M74	412 026 2300	SPECIAL SCREW, M2X4.5
M19	614 140 1539	LEVER, E KICK	M75	412 026 1501	SPECIAL SCREW, M2X6
M20	614 129 0676	BOSS, PR STOPPER	M76	412 036 8200	SPECIAL SCREW, +- CUP 2X7.5
M21	614 152 1305	SPRING WIRE, REC BUTTON	M77	412 031 6607	SPECIAL SCREW, (+) BIND M2X3
M22	614 152 1268	SPRING WIRE (B)	M78	412 026 1709	SPECIAL SCREW, AZIMUTH M2X7
M23	614 024 1693	SWITCH, LEAF	M79	412 031 7901	SPECIAL SCREW, M2X6, C TAPPING
M24	614 151 4703	SPRING COIL	M80	614 124 4594	SPECIAL SCREW, 2X5
M25	614 211 6944	SLIDE, HEAD PANEL	M81	412 023 0903	SPECIAL SCREW, 2X5
M26	614 210 6822	SLIDE, HEAD PANEL	M83	412 013 5000	SPECIAL WASHER, 1.2X3 8X0.3
M27	614 146 5111	BRACKET TAPE GUIDE, HEAD	M84	412 026 1808	SPECIAL WASHER, 1.45X3.8X0.5
M28	614 196 0470	BRACKET HEAD	M85	412 013 8902	SPECIAL WASHER, 2X3.5X0.3
M29	614 210 3432	SPRING WIRE, PANEL (P)	M87	614 196 9756	SWITCH, REC
M30	614 152 1299	SPRING WIRE, M CONTROL	M88	614 195 4424	SWITCH, LEAF
M33	614 151 5090	SPRING COIL, EH	M89	614 209 3849	SWITCH, LEAF, LEAF
M34	614 151 7162	SPRING COIL, AZIMUTH	M91	614 140 1676	LEVER, P KICK LEVER (B)
M35	614 210 3302	LEVER PINCH ROLLER ASSY	M92	614 139 8679	LEVER, P KICK LEVER (A)
M38	614 140 1614	LEVER, SENSING	M93	412 005 8101	SPECIAL SCREW, PK COLLAR
M39	614 069 2273	PULLEY ASSY, RF CLUTCH	M94	614 129 0683	BOSS, COLLAR (B)
M40	614 195 5087	SQUARE BELT, RF BELT	M95	614 151 4758	SPRING COIL, P KICK
M43	614 204 8672	FLYWHEEL ASSY	M97	614 197 0219	LEVER, SW
M44	614 068 1871	FLYWHEEL DISK ASSY	M98	614 197 0202	BOSS, SW LEVER COLLER
M45	614 151 8312	SPRING PLATE, GEAR	M100	614 208 0276	LUG
M46	614 070 0916	LEVER ASSY			
M47	614 134 9053	GEAR, CAM			
M49	614 134 9046	GEAR, FF			
M50	614 205 1337	SPRING COIL, BACK TENSION			
M51	614 211 3868	REEL ASSY, SUPPLY			
M52	614 211 3875	REEL ASSY, TAKE UP			

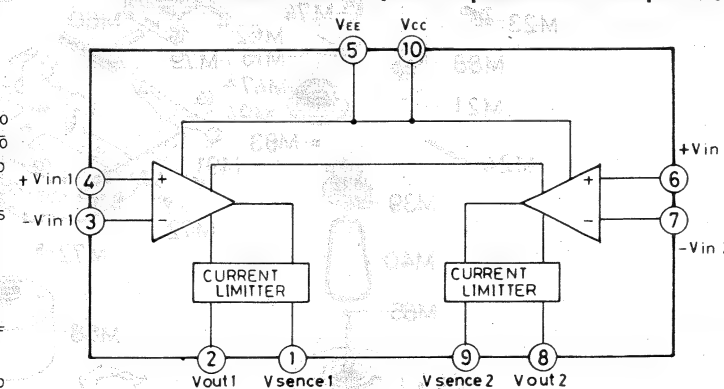
IC BLOCK DIAGRAM

<CD SECTION>

IC1101 LA9200NM (RF Amplifier & Servo System)



IC1201-1202 LA6510 (Dual Operational Amplifier)



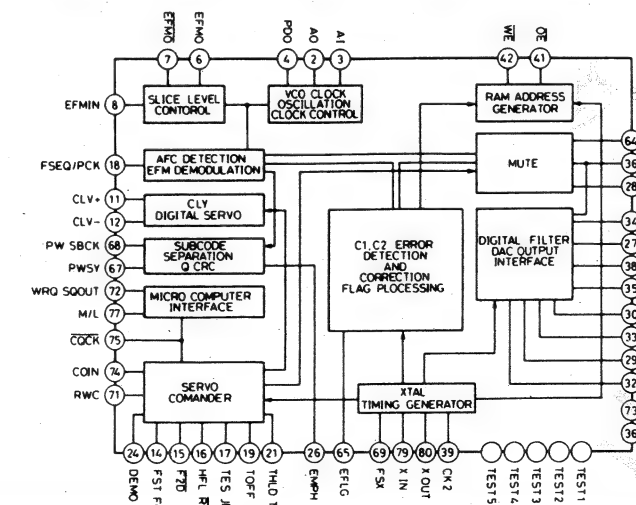
IC BLOCK DIAGRAM

IC1301 Pin Function of CXP5046H-225S (Micro Processor)

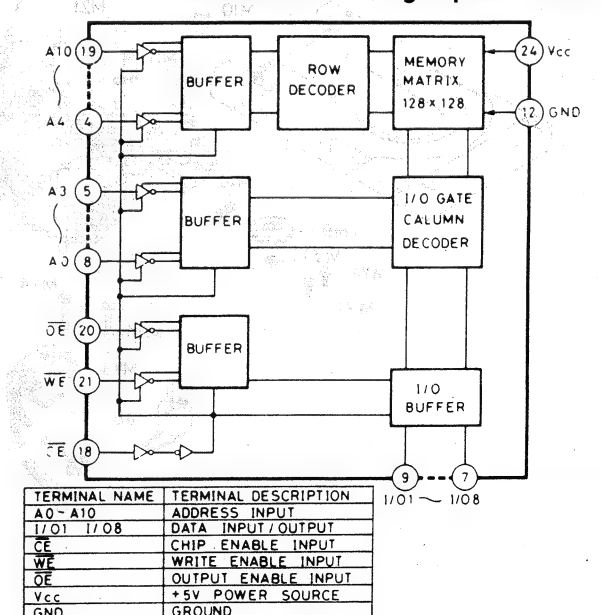
No	Pin Name	Description
1	IR	Remote control signal input
2	IR	Remote control signal input
3	REC SW	Deck REC signal input (ON / OFF)
4	DIR SW	Deck REC REW / FWD signal input (A / B)
5	SYNC	Syncro REC signal output
6	NC	(PULL UP)
7	NC	(PULL UP)
8	NC	(PULL UP)
9	NC	(PULL UP)
10	SCAN0	Key & Display scan output
11	SCAN1	Key & Display scan output
12	SCAN2	Key & Display scan output
13	SCAN3	Key & Display scan output
14	KEY0	Key input
15	KEY1	Key input
16	KEY2	Key input
17	KEY3	Key input
18	SEG F	LED Display Segment Output
19	SEG A	LED Display Segment Output
20	SEG B	LED Display Segment Output
21	SEG G	LED Display Segment Output
22	SEG H	LED Display Segment Output
23	SEG C	LED Display Segment Output
24	SEG D	LED Display Segment Output
25	SEG E	LED Display Segment Output
26	NC	
27	NC	
28	NC	
29	NC	
30	CLV G	CLV Gain control
31	NC	
32	VSS	GND

No	Pin Name	Description
33	LDON	Laser ON / OFF output
34	CLOSE	Tray control motor output
35	OPEN	Tray control motor output
36	XTAL	Oscillator output
37	EXTAL	Oscillator input
38	RST	DRF input from LA9200NM
39	CQCK	Clock Output to LC7860k
40	COIN	COIN input from LC7860K
41	NC	
42	SQOUT	SUBQ data input from LC7860k
43	RWC	RWC Output to LC7860k
44	NC	
45	WRQ	WRQ input from LC7860K
46	DRF	DRF input from LA9200NM
47	NC	
48	CMOPN	Open SW Input (ON / OFF)
49	LIMIT	Pick-up Limit SW Input (ON / OFF)
50	NC	
51	NC	
52	NC	(PULL UP)
53	NC	(PULL UP)
54	NC	(PULL UP)
55	NC	(PULL UP)
56	SL OP	Tray control motor output (SLED)
57	SL O	Tray control motor output (SLED)
58	NC	
59	SL C	Tray control motor output (SLED)
60	NC	
61	NC	
62	NC	
63	NC	
64	VDD	+5V

IC1401 LA7860K (Digital Signal Processor)



IC1402 LC3517BS-15 (Static Random Access Memory) 5k-word x 8-bit High-speed C-MOS



IC BLOCK DIAGRAM

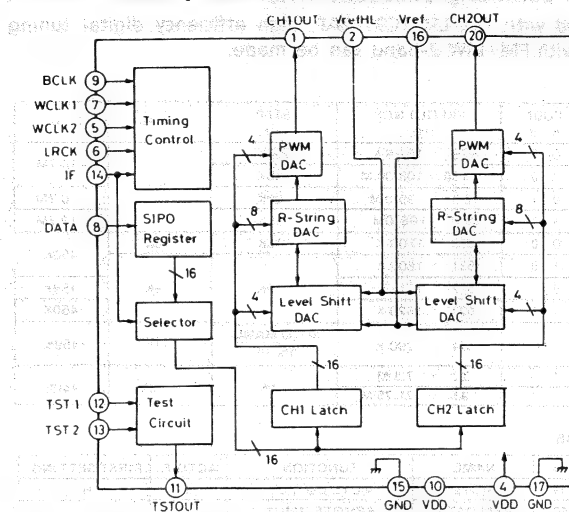
IC1401 Pin Function of LC7860K (Digital Signal Processor)

Pin No	Pin Name	I/O	Functions
1	TEST1	I	Test pin. Normally not connected.
2	AO	O	VCO is generated by connecting resonance circuit between AI and AO. (8.6436MHz) is phase output with EFM signal, and is set to increase frequency when +.
3	AI	I	
4	PDO	O	
5	Vss	-	GND
6	EFMO	O	1 to 2Vpp HF signal is input to EFMIN.
7	EFMO	O	Output from EFMO and BFMO passes through amplitude limiter and reverse phase EFM signal is obtained from both. This performs slice level control.
8	EFMIN	I	
9	TEST2	I	Test pin. Normally not connected.
10	VDD	-	+5V
11	CLV+	O	Disk motor control output
12	CLV-	O	
13	FOCS	O	Focus servo is off when FOCS is HIGH. The lens is lowered by FST and then FST is HIGH, the lens is gradually pulled up. FOCS is reset when FZD is generated. For focus-in.
14	FST	O	
15	FZD	I	
16	HFL	I	*1 Kick pulses, JP+ and JP-, are generated according to track jump command. A jump of the prescribed number of tracks is (1, 4, 16, 64).
17	TES	I	
18	FSEQ/PCK	O	*2 When 4.3218MHz PCK monitor terminal/DEMO is HIGH both SYNC detected from EFM signal and SYNC of counter are the same at HIGH.
19	TOFF	O	
20	TGL	O	
21	THLD	O	
22	JP+	O	
23	JP-	O	
24	DEMO	I	Set and sound output adjustment pin function.
25	TEST3	I	Test pin. Normally not connected.
26	EMPH	O	De-emphasis is necessary when HIGH.
27	DFOFF	I	ON/OFF switch for digital filter. No filtering when HIGH.
28	DSPOFF	I	Test pin. Normally not connected.
29	SMP2	O	*3 Signal output to DAC and signal for L/R switching and sample hold.
30	LRCLK	O	
31	VDD	-	*4 +5V
32	SMP3	O	*5 Signal output for CDROM
33	SMP1	O	*6 CDROM sync signal
34	DFOUT	O	
35	DACLK	O	
36	DFIN	I/O	
37	LRSY	O	
38	MSBF	I	
39	CK2	O	2.1609MHz
40	AD10	O	*7 RAM address output
41	AD10	O	*8 Output state when WE = L and input state when WE = H. OE is for input/output control.
42	OE	O	
43	AD9	O	

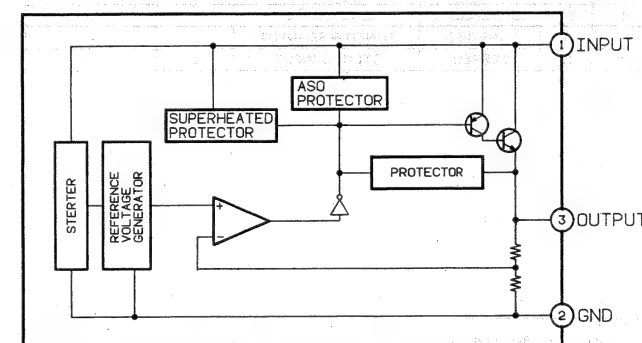
Pin No.	Pin Name	I/O	Functions
44	AD8	O	*7 RAM address output
45	AD7	O	*8 Output state when WE = L and input state when WE = H. OE is for input/output control.
46	AD6	O	
47	AD5	O	
48	AD4	O	
49	AD3	O	
50	AD2	O	
51	AD1	O	
52	AD0	O	
53	DB7	I/O	*9 DB7 to DB0: connected to RAM data pins.
54	DB6	I/O	
55	DB5	I/O	
56	Vss	-	*10 GND
57	DB4	I/O	
58	DB3	I/O	
59	DB2	I/O	
60	DB1	I/O	
61	DB0	I/O	
62	TEST4	I	Test pin. Normally not connected.
63	TEST5	I	
64	IOFF	I	
65	EFLG	O	For CD ROM. HIGH time interpolation and holding of previous value not performed.
66	PW	O	C1/C2 1-level and 2-level error correction
67	PWSY	O	PWSY is SYNC combining main and sub and change from HIGH to LOW is taken externally. The P, Q, R, S, T, U, V, and W subcodes are read by sending 8 clock pulses to SBCK.
68	SBCK	I	
69	FSX	O	7.35kHz sync signal output
70	WRQ	O	*11 WRQ goes HIGH when data of subcode Q passes CRC check. This is taken externally and the data from SQOUT is read by sending CQCK. When data is required with LSB first, M/L is driven LOW. After the microprocessor sets RWC to HIGH, the command is given by output synchronized with the CQCK command data.
71	RWC	I	
72	SQOUT	O	
73	VDD	-	
74	COIN	I	
75	CQCK	I	
76	RES	I	*12 Goes LOW once when power is turned on.
77	M/L	I	
78	Vss	-	GND
79	XIN	I	Pin for connection to 8.6436MHz crystal oscillator
80	XOUT	O	

IC BLOCK DIAGRAM

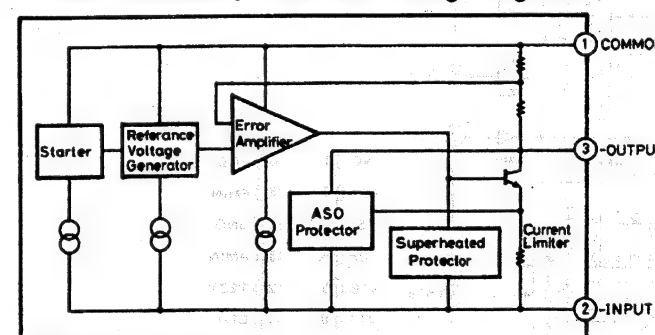
IC1501 LC7881 (16-Bit D/A Converter)



IC1601 M5278D05 (3 Terminal Voltage Regulator)

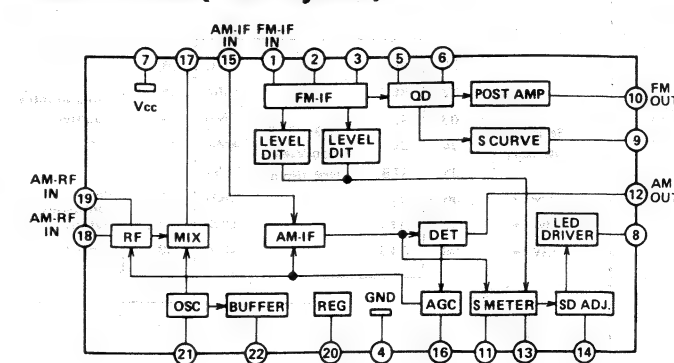


IC1602 AN79N05 (3 Terminal Voltage Regulator)



<TUNER SECTION>

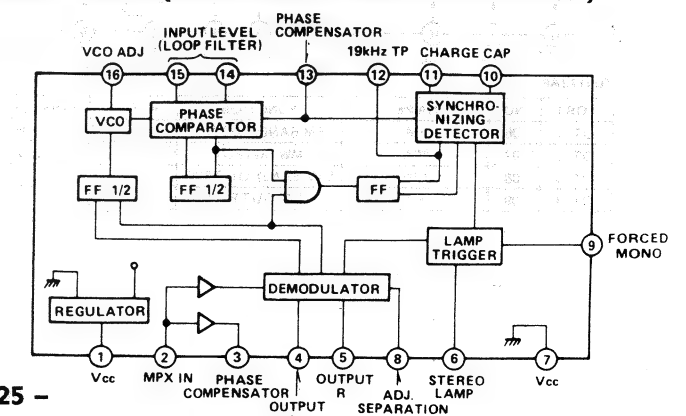
IC201 LA1265 (Tuner System)



Pin Function of IC1501 (LC7881)

No	Pin Name	Description
1	CH1 OUT	Output Terminal of CH-1
2	VrefH	Input Terminal of Reference Voltage "H"
3	NC	No Connection
4	VDD	+5V Power Supply Terminal
5	WCLK2	Input Terminal of Word-Clock 2. When IF is in "L", internal signal for latching CH-1 data of digital signal is made by using trailing edge WCLK2. When IF is in "H", it needs WCLK2 is in "L".
6	LRCK	Input Terminal of LR Clock. Indicates CH-1 and CH-2 of input digital audio data : indicate CH1 when LRCK is in "H". indicate CH2 when LRCK is in "L".
7	WCLK1	Input Terminal of Word-Clock 1. When IF is in "L", internal signal for latching CH-2 data of digital signal is made by using trailing edge WCLK1. When IF is in "H", internal signal for latching CH-1 and CH-2 data of digital signal is made by using trailing edge WCLK1.
8	DATA	Input Terminal of digital audio data. When IF is in "L", digital audio data is input in bit serial from LSB. When IF is in "H", digital audio data is input in bit serial from MSB.
9	BCLK	Bit-Clock Terminal. This clock is for reading digital audio data into LSI in bit serial and is for PWMDAC.
10	VDD	+5V Power Supply Terminal
11	TSTOUT	Output Terminal for Testing. Ordinarily, leave this terminal open.
12	TST1	Input Terminal for Testing. Ordinarily, ground these terminals.
13	TST2	Input Terminal for Testing. Ordinarily, ground these terminals.
14	IF	Interface Select Terminal. When IF is in "L", digital audio data is input from LSB side. When IF is in "H", digital audio data is input from MSB side.
15	GND	Ground Terminal
16	VrefL	Input Terminal of Reference Voltage "L".
17	GND	Ground Terminal
18	NC	No Connection
19	NC	No Connection
20	CH2OUT	Output Terminal of CH2.

IC301 LA3361 (PLL FM MPX. Stereo Demodulator)

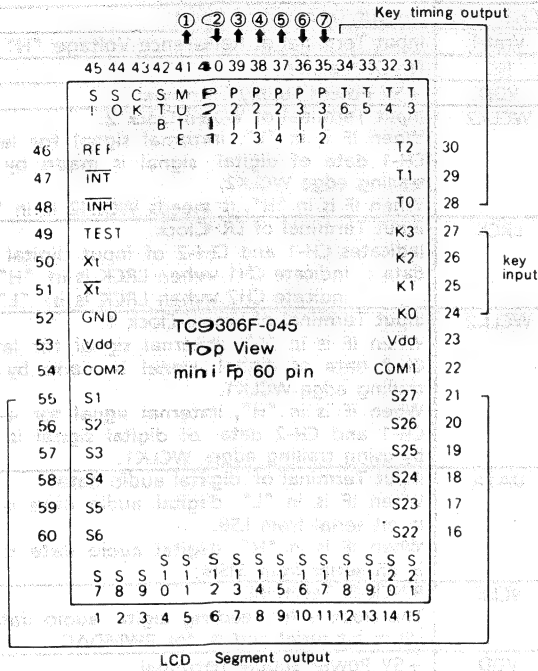


IC BLOCK DIAGRAM

IC401 TC9306F-045-BS (Frequency Synthesizer System)

System Summary (TC9306F-045)

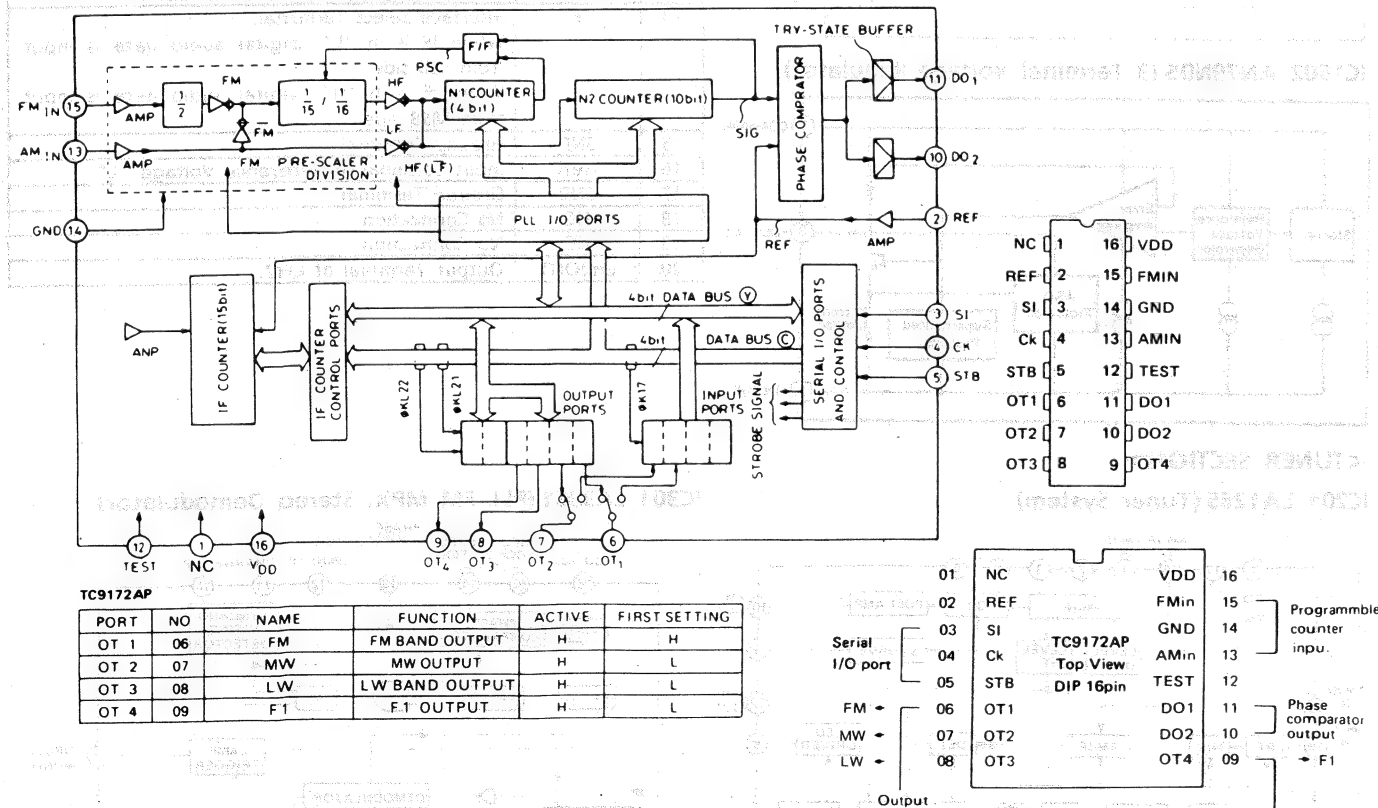
Combined with PLL LSI TC9172AP, high efficiency digital tuning system with FM/MW 2-band can be made.



BAND					
BAND	CODE A B	FREQUENCY (Hz)	STEP (Hz)	Fref (Hz)	IF (Hz)
FM	0 0	87.9 ~ 107.9 M	200K	25K	+10.7M
	1 0	87.50 ~ 108.00 M	50K		10.7M
	0 1	76.0 ~ 90.0 M	100K		
	1 1	65.0 ~ 108.0 M	50K		
MW	0 0	530 ~ 1700 K	10K	10K	+450K
	1 0	531 ~ 1602 K	9K	9K	
	0 1	522 ~ 1611 K			+459K
	1 1	522 ~ 1629 K			+450K
LW	1	144 ~ 290 K	AUTO MANU 9K/1K	1K	+459K
SW1	1 -	3.2 ~ 7.3 M	5K	5K	+450K
SW2	- 1	9.5 ~ 21.75 M			

PORT	No	NAME	FUNCTION	ACTIVE	FIRST SETTING
MUTE	41	MUTE	MUTE OUTPUT	H	H
P2-1	40	REM.DATA	REMOTE INPUT	H	-
P2-2	39	VR UP	VR UP OUTPUT	H	L
P2-3	38	VR DOWN	VR DOWN OUTPUT	H	L
P2-4	37	AUTO/MANUAL	AUTO OUTPUT	H	L
P3-1	36	TUNED/SD	TUNED & SD INPUT	L	-
P3-2	35	STEREO	STEREO INPUT	L	-

IC402 TC9172AP (High-Speed PLL with Pre-Scaler)



Pin Function of TC9306F-045

Explanation of terminal functions

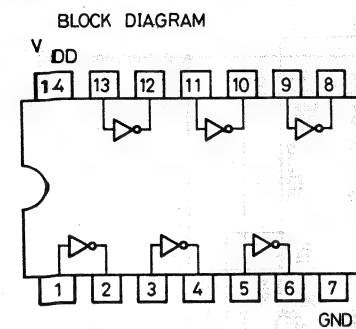
Pin No.	Symbol	Description of function and operation	Remarks
22	COM1	Terminal to output common signal output to LCD	VDD
54	COM2	It is possible to indicate max. 54 segments by using the matrix S1 S27. At this terminal, three levels of VDD, 1/2 VDD and GND are outputted with intervals of 5 ns at a frequency of 50 KHz. Note: During system resetting or when CKSTP command is executed, output is automatically set to "L" level.	
55~60	S1~S27	Terminal to output segment signal output to LCD. It is possible to indicate max. 54 segments by using the matrix COM1 and COM2. Data is outputted to these terminals by SEG command (COM1 system) and MARK command (COM2 system). For segment decoding, the decode pattern is made in the ROM area, and it is executed by using the DAL command. Note: During system resetting or when CKSTP command is executed, output is automatically set to "L" level.	
24~27	K0~K3	4-bit input port for key matrix input. When KEY command which assigns this port to the operand part is executed, data of these terminals are read in to RAM. All the terminals incorporate pull-down resistor. The output ports of To Ts are normally used for key return timing signal output.	
28~34	To~Ts	4-bit (To Ts) or 3-bit (Ts) output port. These ports are normally used for key return timing signal output of key matrix.	
35	P3 2	I/O port 3 A/D input	To A/D converter
36	P3 1	I/O port 3 A/D input	converter
37~40	P2 4~P2 1	At this port it is possible to assign input and output per bit. For this assignment, the content of internal port called PORT 3 I/O CONTROL is used. This terminal is also used for analog input of incorporated 4-bit A/D converter. The switching to A/D converter input is controlled according to the content of PORT 3 I/O CONTROL port. The incorporated A/D converter adopts the programmed successive comparison system in which P3 1 is for reference voltage input, and P3 2 is for analog comparison voltage input.	
41	MUTE	4-bit I/O port. At this port it is possible to assign input and output per bit. For this assignment, the content of internal port called PORT 2 I/O CONTROL port is used.	
42	STB	1-bit output port. This port is normally used for muting control signal output. Note: When the INH input is changed from "H" to "L" or "L" to "H", the output is automatically set to "H" level.	
43	CK	Serial interface	
44	SO	By executing the SIO command, the externally mounted PLL LSI or an optional IC of peripheral part can be controlled. The serial transferring mode, NCD or NCD, can be selected as programmed.	
45	SI	Serial data input	

(Supplement)

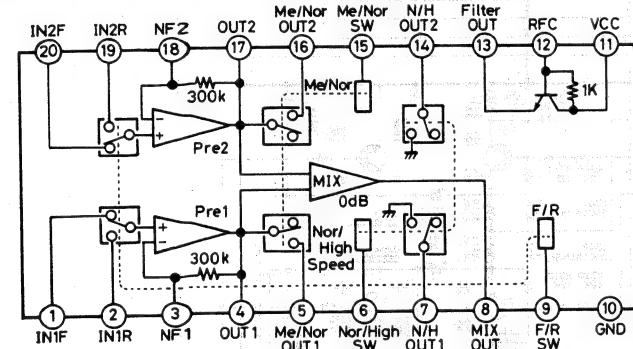
IC BLOCK DIAGRAM

<DECK SECTION>

IC001 LA4069(Hex Inverter)

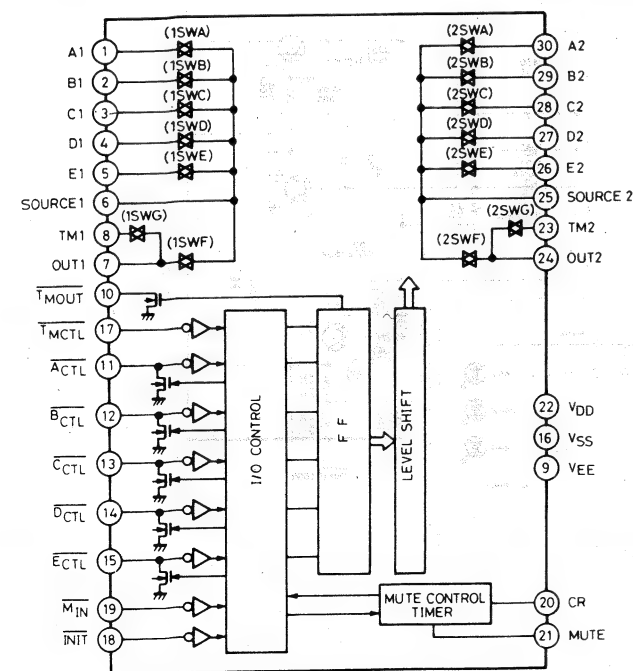


IC501 LA3246(Pre & Mixing Amplifier with Electrical Switch)

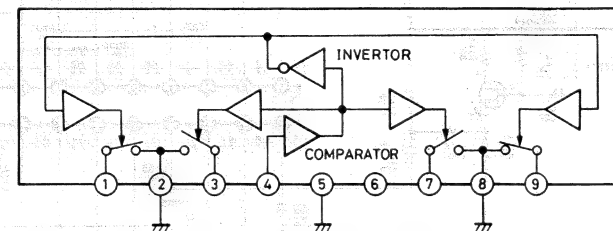


<AMP. SECTION>

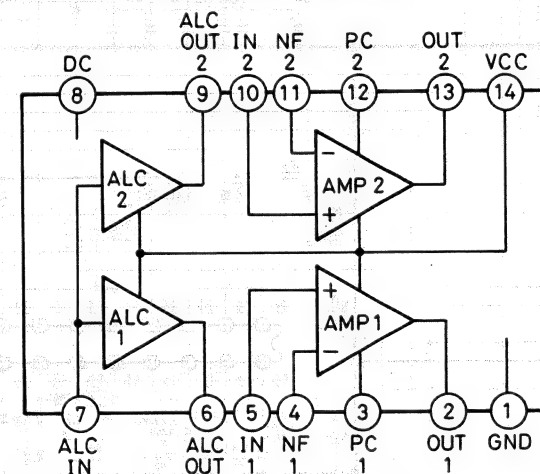
IC702 LC7818(2-Pole 4-Position Analog Function Switch)



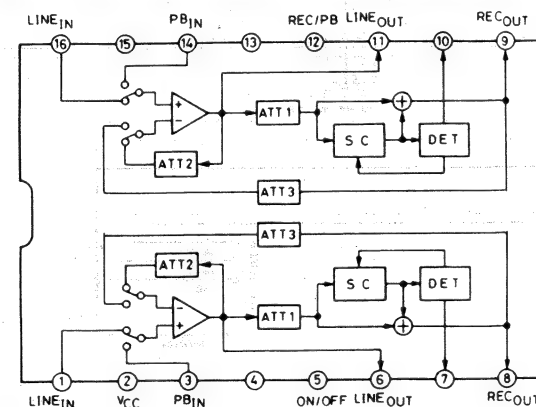
IC502 μ PC1330HA (2-Channel Head Select Switch for Tape Deck)



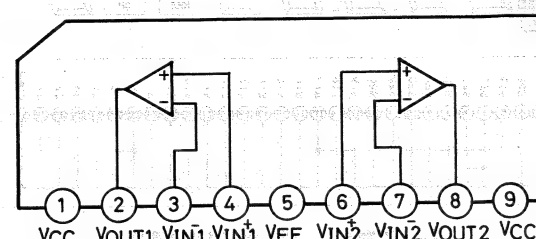
IC521 LA3220(Dual Pre-Amplifier)



IC551 CXA1101P(Dolby B-Type Noise Reduction)

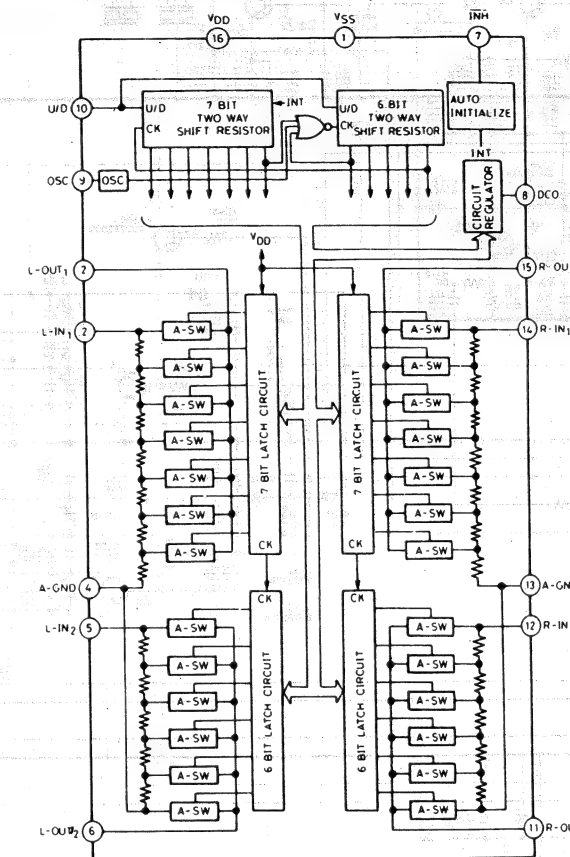


IC701-711 LA6458S(Dual Operational Amplifier)

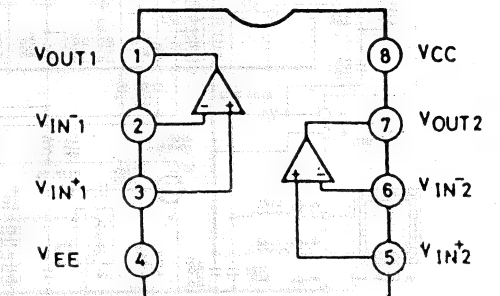


IC BLOCK DIAGRAM

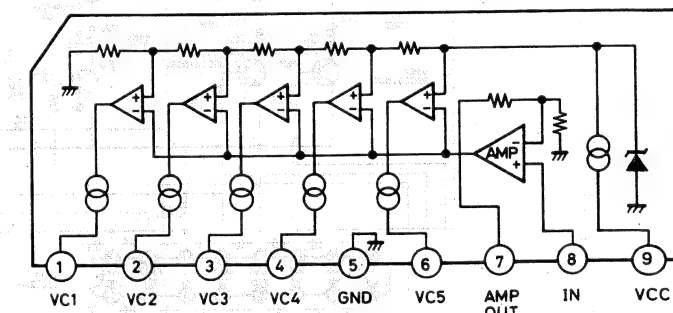
IC705 TC9153AP(Electronic Volume)



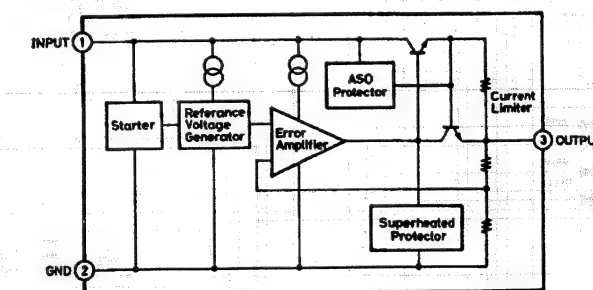
IC706 LA6458D(Dual Operational Amplifier)



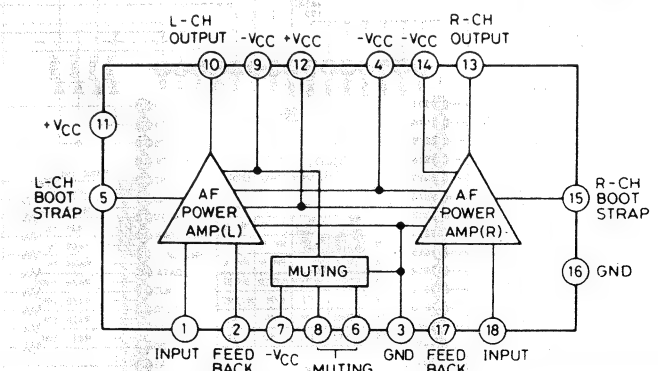
IC707 BA1433(LED Level Meter Driver)



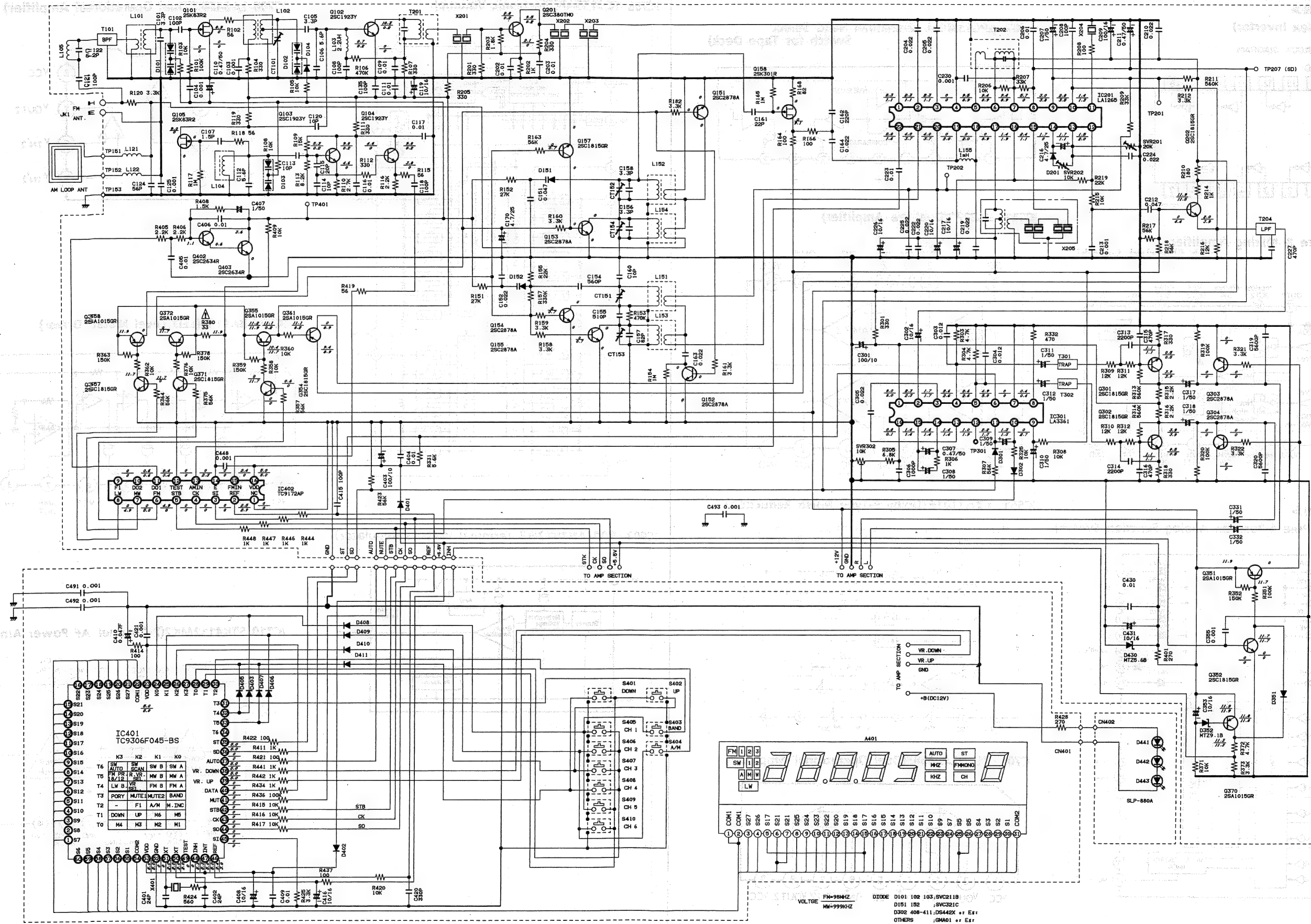
IC903-904 AN7812F(3 Terminal Voltage Regulator)



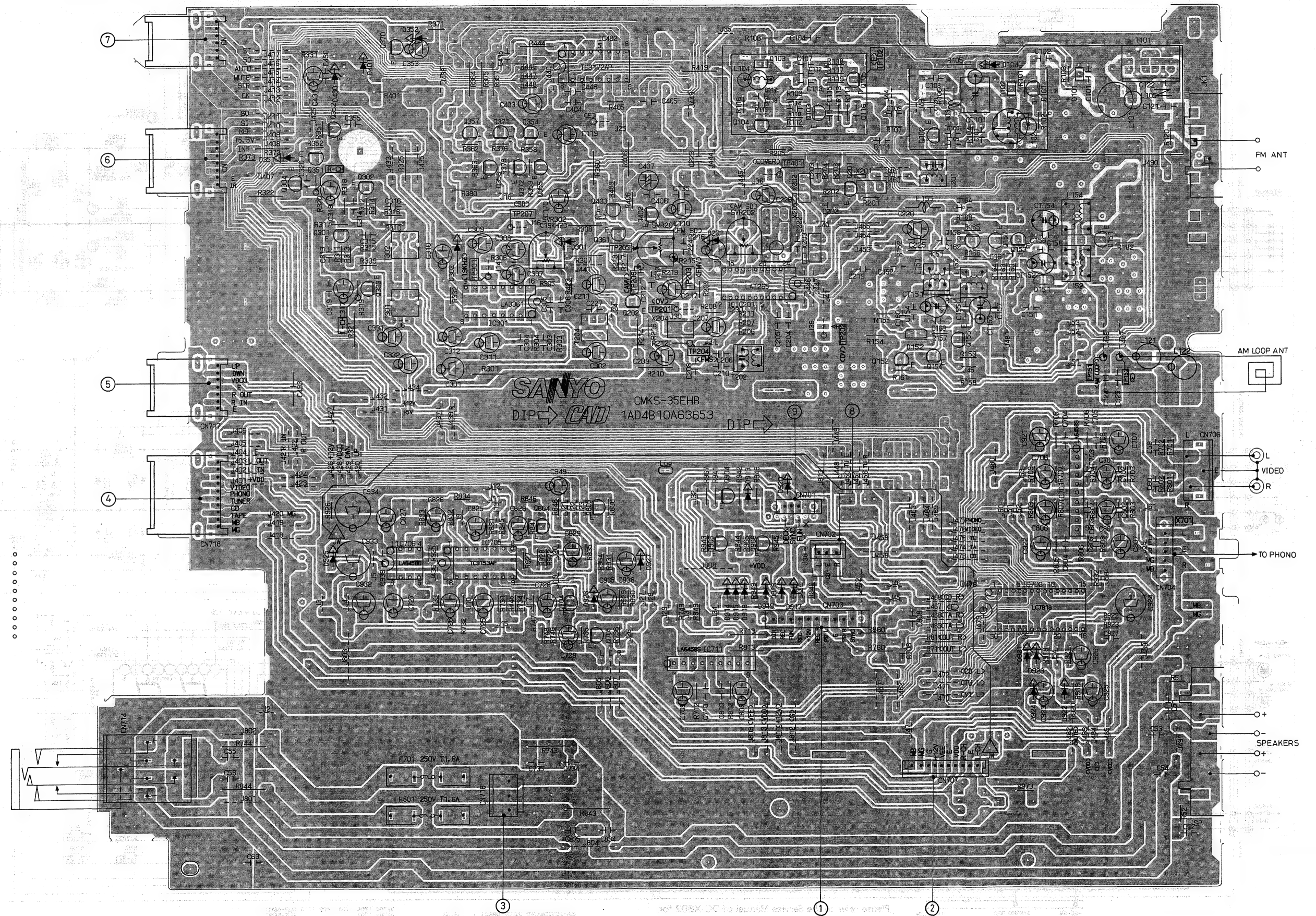
IC710 STK4112MK2(2-Channel AF Power Amplifier)



SCHEMATIC DIAGRAM (TUNER)



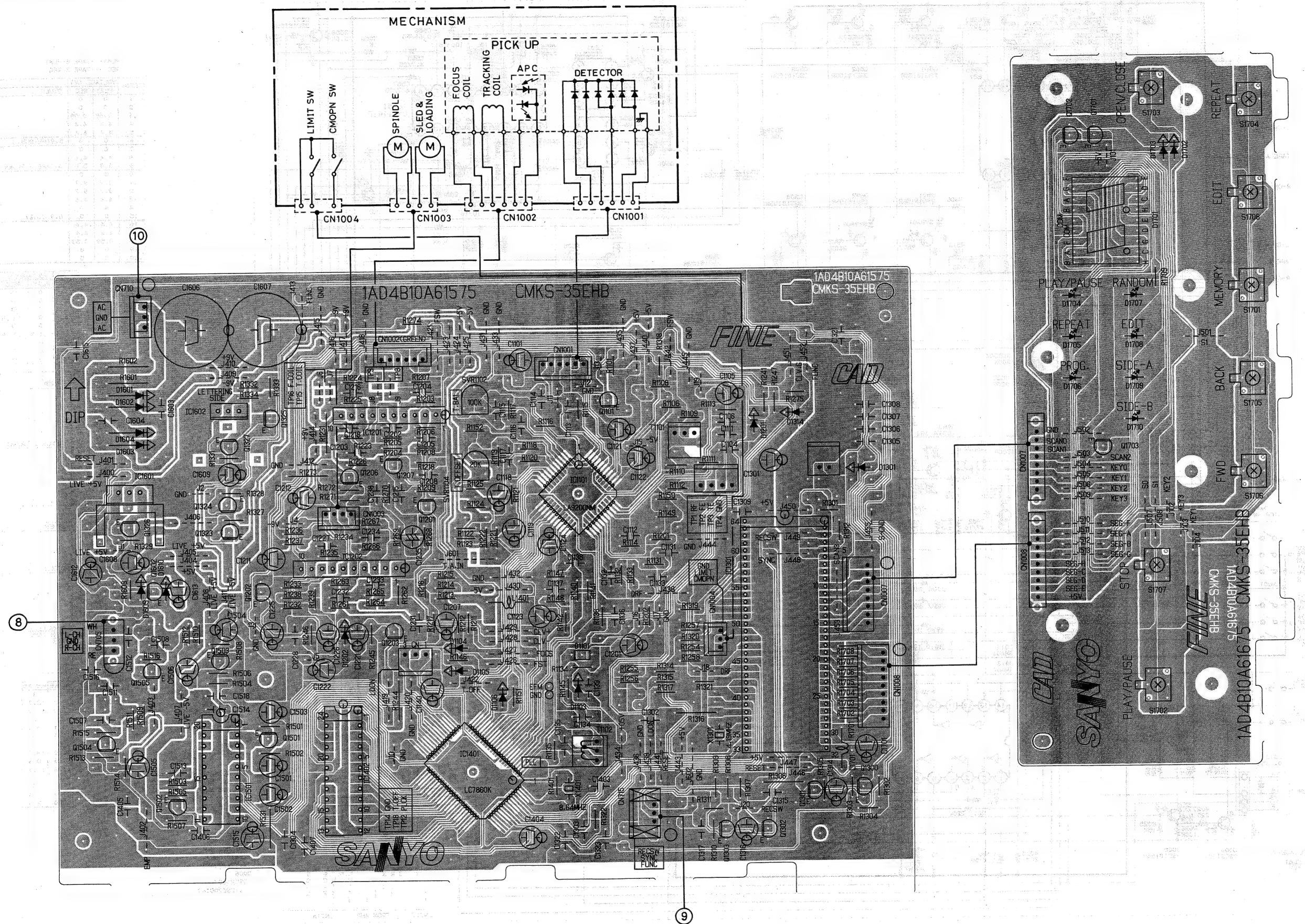
WIRING DIAGRAM (TUNER & PRE-AMP.)



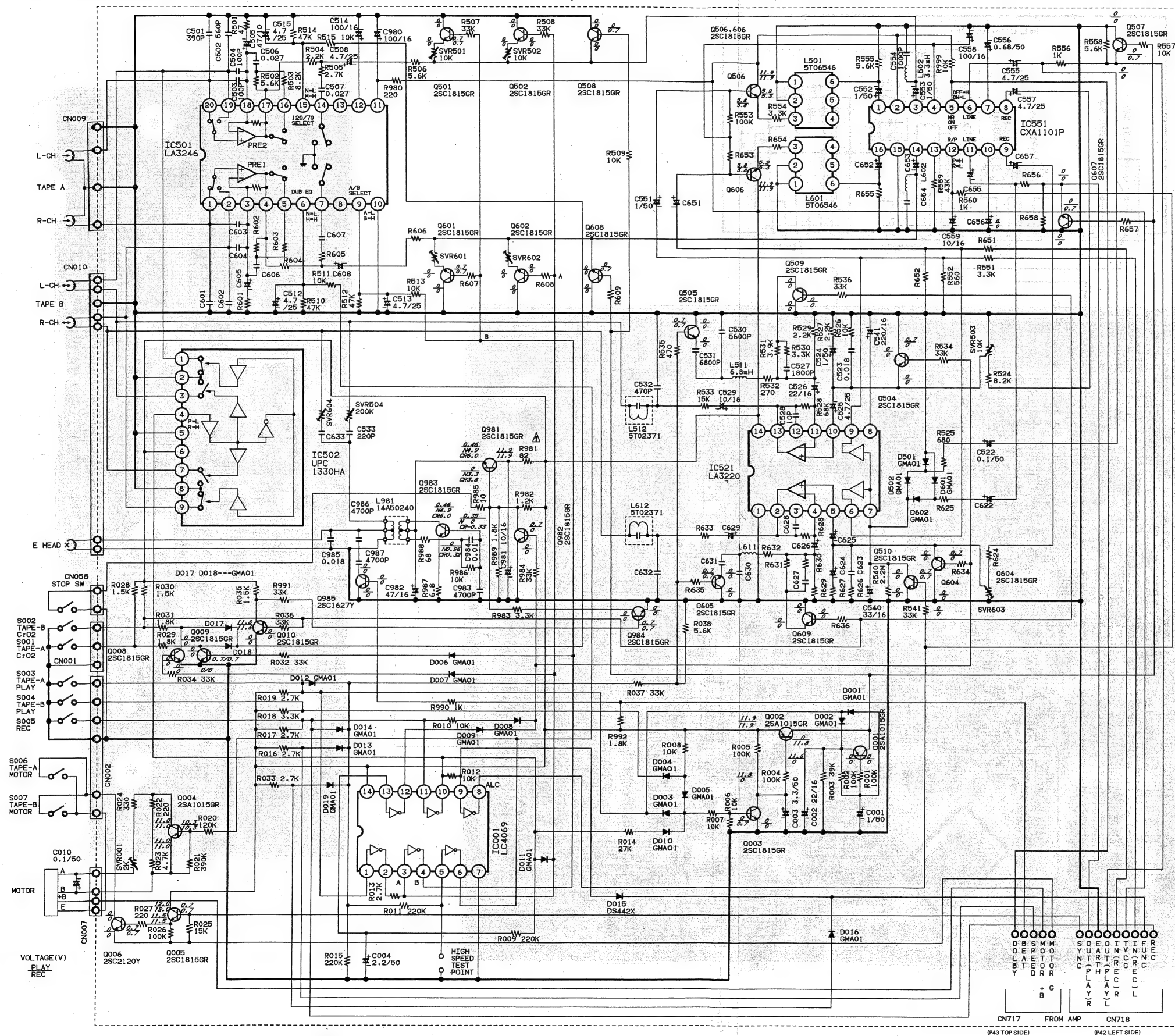
Journal of Management Inquiry 16(4) 409-427



WIRING DIAGRAM (CD)



SCHEMATIC DIAGRAM (DECK)



PLAY...TAPE B PLAY			
REC ...TAPE B REC			
IC501	VOLTAGE (V)		OTHER
	PLAY	REC	
1	0	0	
2	0	0	
3	0.59	0.59	
4	4.4	4.4	
5	4.4	4.4	
6	0	0	5.9 (HI. DUB.)
7	0	0	0 (TAPE A PLAY)
8	4.4	4.4	
9	5.9	5.9	
10	0	0	
11	9.7	9.7	
12	9.7	9.7	5.9 (Cr02)
13	4.4	4.4	
14	0	0	
15	0	0	
16	4.4	4.4	
17	4.4	4.4	
18	0.59	0.59	
19	0	0	
20	0	0	
21	0	0	

```
S001 TAPE A SELECT SW "Cr02"
S002 TAPE B SELECT SW "Cr02"
S003 TAPE A PLAY SW "OFF"
S004 TAPE B PLAY SW "OFF"
S005 TAPE B REC SW "OFF"
S006 TAPE A MOTOR SW "OFF"
S007 TAPE B MOTOR SW "OFF"
```

IC502	VOLTAGE (V)	
	PLAY	REC
1	0	0
2	0	0
3	0	0
4	0	11.6
5	0	0
6	11.9	11.9
7	0	0
8	0	0
9	0	0

TC521	VOLTAGE (V)		OTHER
	PLAY	REC	
1	0		
2	0.59	0.59	
3	11.2	11.2	
4	5.9	5.9	
5	5.9	5.9	
6	0	0	
7	0	0	1.15(ALC DOING)
8	5.9	5.9	
9	0	0	
10	5.9	5.9	
11	5.9	5.9	
12	11.2	11.2	
13	5.9	5.9	
14	11.9	11.9	

IC551	VOLTAGE (V)		OTHER
	PLAY	REC	
1	6.0	6.0	0 (DOLBY ON)
2	11.9	11.9	
3	6.0	6.0	
4	6.0	6.0	
5	11.9	11.9	
6	6.1	6.1	0 (FUNCTION SW (NON TAPE REC)
7	0.4	0.4	
8	6.1	6.1	
9	6.1	6.1	
10	0.4	0.4	
11	6.1	6.1	
12	11.8	0	
13	1.2	1.2	
14	6.0	6.0	
15	0	0	
16	6.0	6.0	

TC001	VOLTAGE (V)				
	PLAY	REC	HI.DUB	NOR.DUB	
006	1	11.3	11.2	0	0
012	2	0	0.35	12.0	12.0
019	3	0	10.4	11.0	11.0
	4	11.8	0	0	0
	5	10.7	10.5	0.4	9.6
	6	0	0	11.9	0
	7	0	0	0	0
	8	12.0	0	12.0	12.0
	9	0	11.1	0.6	0.6
	10	0	11.1	11.6	11.6
604	11	11.5	0	0	0
607	12	11.9	0	0	0
982	13	0	10.8	11.4	11.4
010	14	12.0	12.0	12.0	12.0

COMMON USE

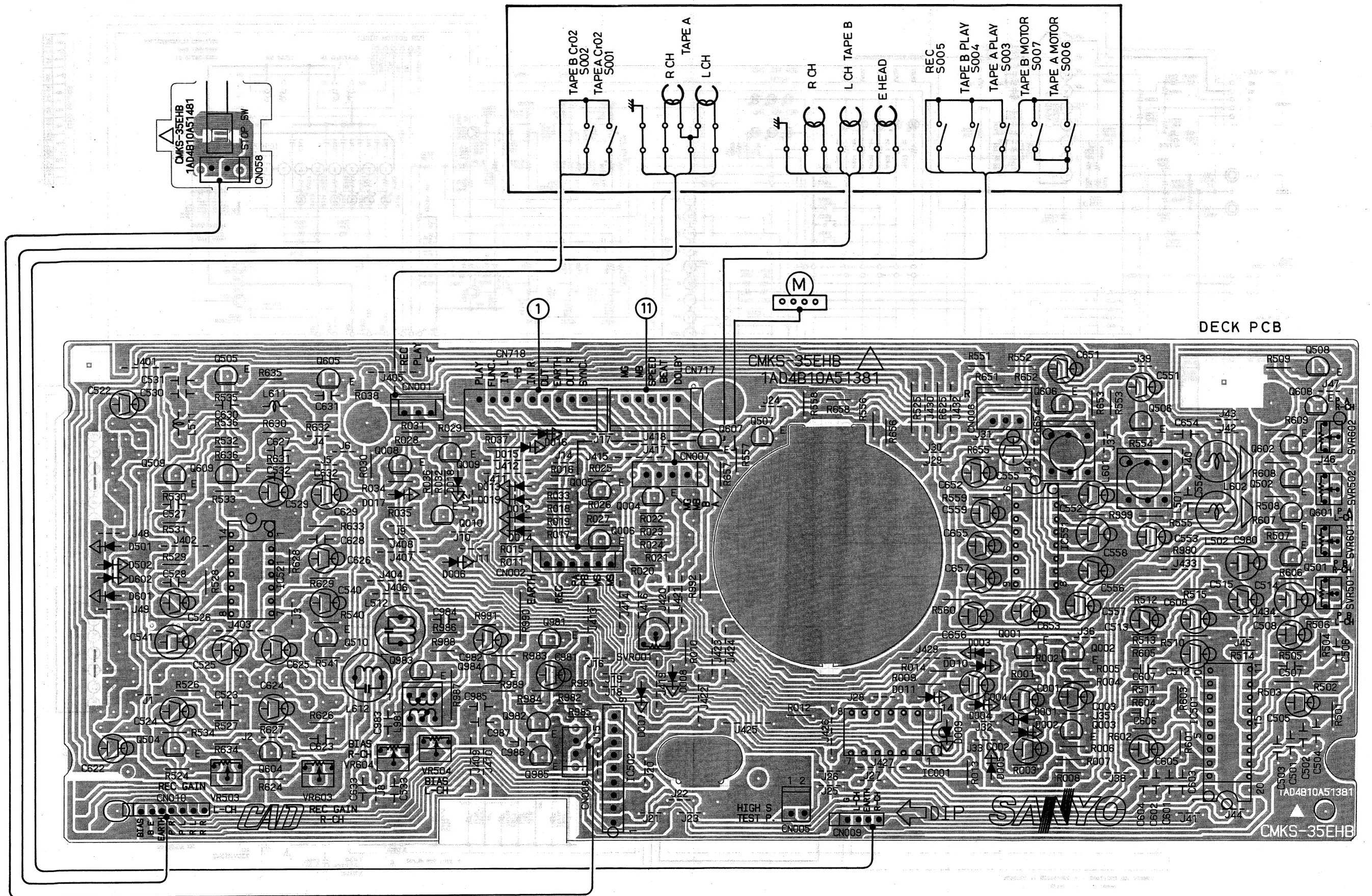
```

D001 002 003 004 005 006
007 008 009 010 011 012
013 014 016 017 018 019
501 601 502 602
GMA01
(*r1SS133)
D015
DS442X
(*r1SC2473)

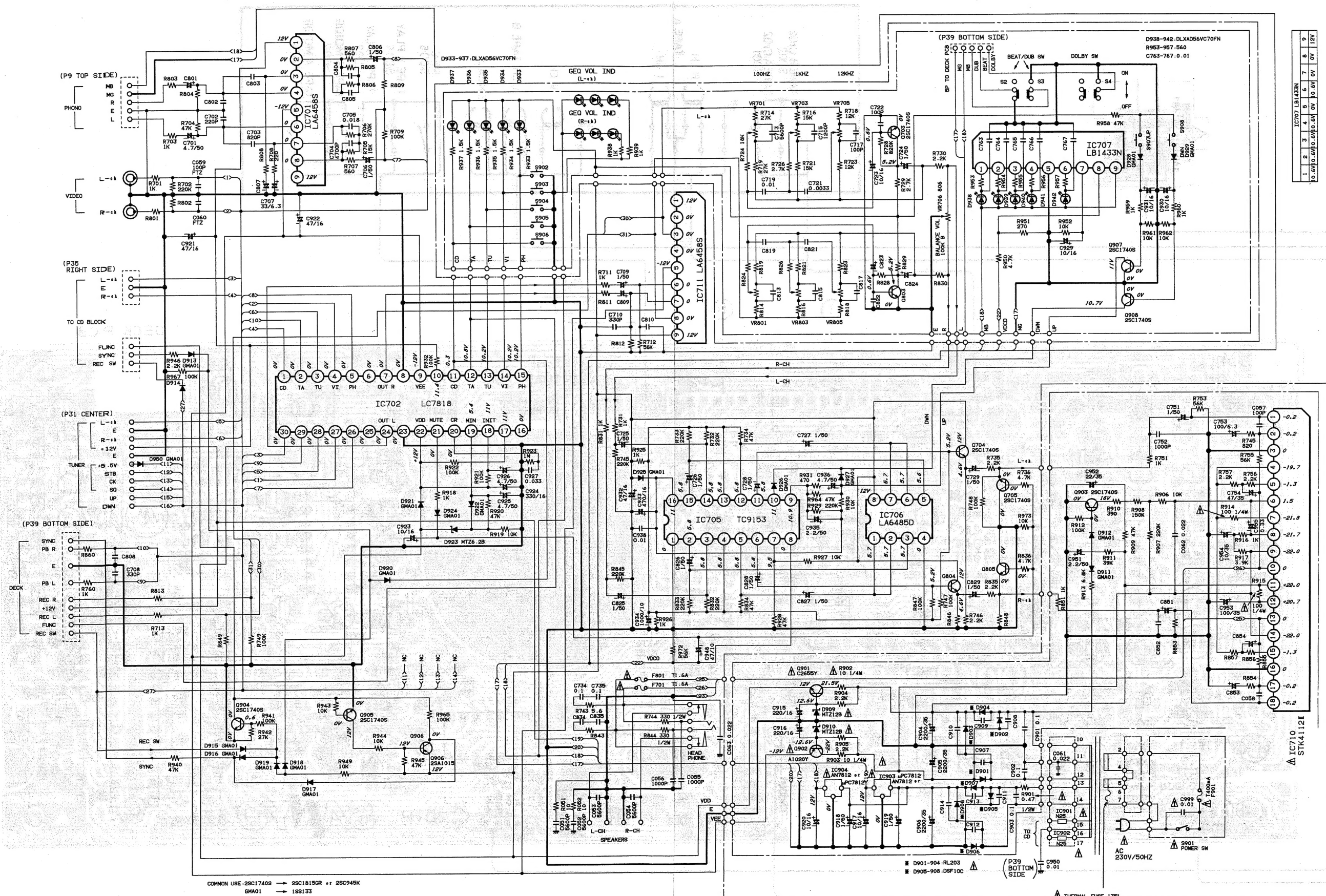
0501 601 502 602 504 604
505 605 506 606 507 607
508 608 509 609 510 582
598 003 005 008 009 010
25C18156R
(*r2SC945K;*r2SC1740S)
0981 983
25C18156R
(*r2SC945K)
0001 002 004
25A10156R
(*r2SA733P)
0006
25C2120Y
(*r2SC2001K)

```

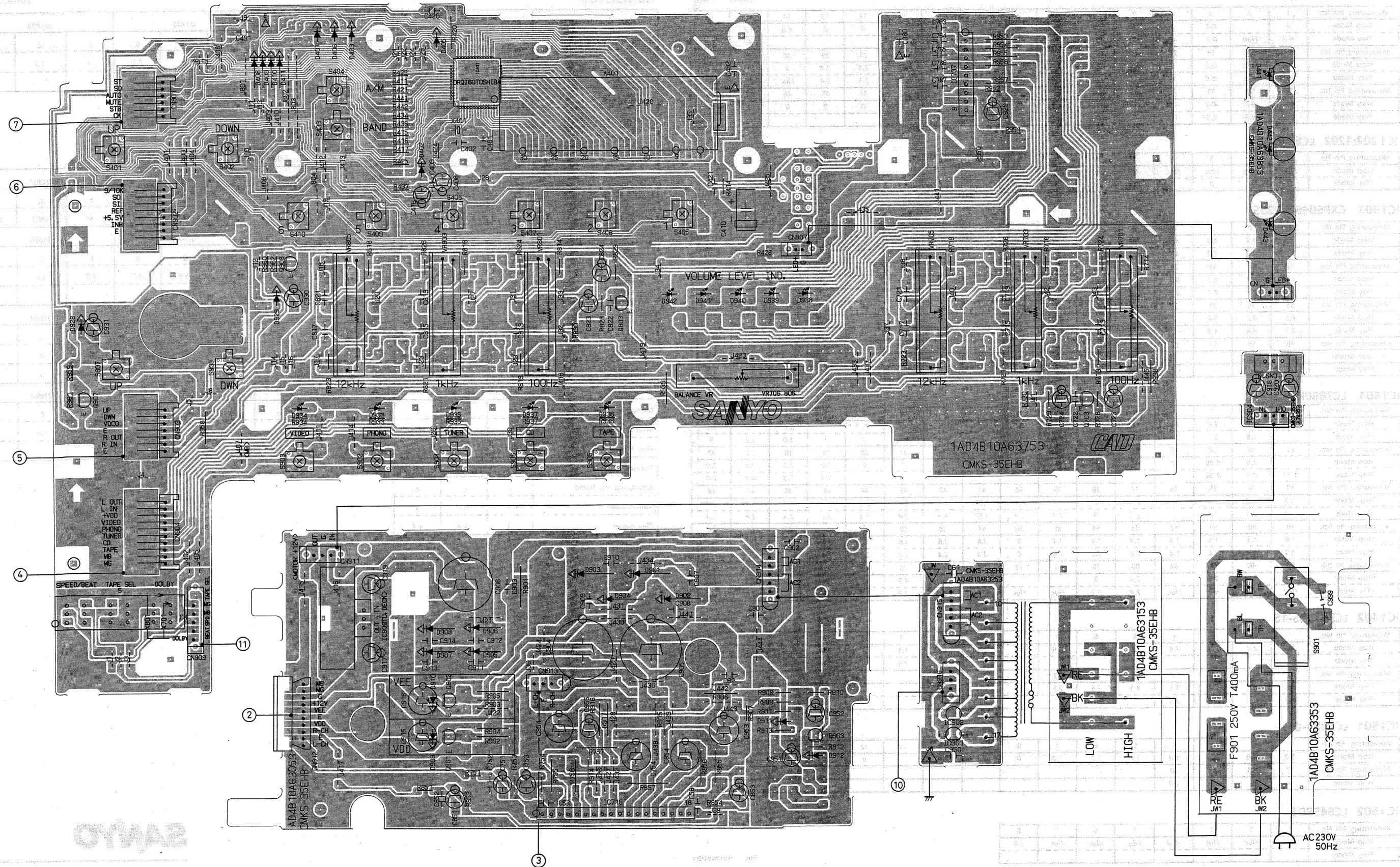

WIRING DIAGRAM (DECK)



SCHEMATIC DIAGRAM (PRE & MAIN AMP.)



WIRING DIAGRAM (FRONT & MAIN-AMP.)



VOLTAGES OF IC & TRANSISTOR

IC1101 LA9200NM

(Unit : Volt)

Measuring Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Stop Mode	0		0.3	0	0	0	0	0	0	0	0	0	0	4.8	4.3	4.1
Play Mode	-0.3	Fluc	0.2	0											0	3.8
Measuring Pin No.	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Stop Mode	4.1	4.0	-5.0	0	4.9	3.6	1.5	1.5	0	2.4	0	2.4	2.4	0	0	0.6
Play Mode	0	4.0	-5.0	0	4.9	2.5	2.6	2.4	0	2.4	4.16	2.5	2.4	Fluc	-0.3	0.3
Measuring Pin No.	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
Stop Mode	0.6	0.2	-0.2	-0.1	0	4.2	4.9	5.0	0	0	-5.0	0	0	0	0	0
Play Mode	0.3	0.8	2.9	1.7		0.3	-5.0	5.0			-5.0					

IC1202-1202 LC6510

Measuring Pin No.	1	2	3	4	5	6	7	8	9	10
Stop Mode	Fluc	Fluc	Fluc	Fluc	-9.8	Fluc	Fluc	Fluc	Fluc	9.7
Play Mode	0	0	0	0	-9.8	0	0	0.3	0.3	9.7

IC1301 CXP5046H-225S

Measuring Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Stop Mode	4.9	4.9	4.9	4.9	4.9	-	-	-	-	2	2	2	4.9	4.9	4.9	4.9
Play Mode	4.9	4.9	4.9	4.9	0.3	-	-	-	-	2	2	2	4.9	4.9	4.9	4.9
Measuring Pin No.	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Stop Mode	4.9	0.3	0.3	0.3	0.3	0.5	0.3	0.3	0.3	-	-	-	-	3.0	-	0
Play Mode	4.9	0.3	0.3	0.3	0.3	0.5	0.3	0.3	0.3	-	-	-	-	3.0	-	0
Measuring Pin No.	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
Stop Mode	4.5	0.2	0.2	-	-	4.9	4.9	0	-	4.6	0	-	4.7	0	-	4.9
Play Mode	0.1	4.8	4.8	-	-	4.9	4.9	0	-	Fluc	0	-	Fluc	4	-	0
Measuring Pin No.	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
Stop Mode	4.9	-	-	-	-	-	-	0.1	0	-	0	0	0	0	0	4.9
Play Mode	0	-	-	-	-	-	-	3.2	3.2	-	3	0	0	0	0	4.9

IC1401 LC7860K

Measuring Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Stop Mode		2.5	2.4	2.4	0	1.4	1.2	2.5	0	4.9				3.0	4.2	4.2
Play Mode		2.5	2.4	2.4	0	2.4	2.4	2.5	0	4.9	0.8	0	0	3.0	4.2	0
Measuring Pin No.	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Stop Mode		2.5	4.86	0	0	0	0	0	0	0	0	1.0	2.5	4.9	2.0	
Play Mode		4.17	2.5	4.86								1.0	2.5	4.9	2.0	
Measuring Pin No.	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
Stop Mode	1.0	2.0	2.4		2.4	0	2.4	2.4	3.57	4.5	2.4	2.4	2.4	2.4	2.4	2.4
Play Mode	1.0	2.3	2.4		2.4	0	2.4	2.4	3.57	4.5	2.4	2.4	2.4	2.4	2.4	2.4
Measuring Pin No.	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
Stop Mode	1.6	1.6	1.6	1.6	1.4	1.4	1.4	0	3.6	3.6	3.6	1.6	3.6			
Play Mode	1.6	1.6	1.6	1.6	2.6	2.6	2.6	0	2.4	2.4	2.4	2.4	2.4			
Measuring Pin No.	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
Stop Mode	2.3		0.3		2.4	0			4.9		4.9	5.0	0	0	2.3	2.3
Play Mode	Fluc		0.3	Fluc	2.4	0.2	Fluc	Fluc	4.9	Fluc	4.9	5.0	0		2.3	2.3

IC1402 LC3517BS-15

Measuring Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Stop Mode	2.4	2.4	2.4	2.4	1.6	1.6	1.6	1.6	2.5	1.4	1.4	0	3.6	3.6	3.6	1.7
Play Mode										2.2	2.5		2.6	2.6	2.6	2.4
Measuring Pin No.	17	18	19	20	21	22	23	24								
Stop Mode	3.6	0	2.4	3.5	4.5	2.5	2.5	4.9								
Play Mode	2.3		2.4	3.5												

IC1501 LC7881-C

Measuring Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Stop Mode	2.0	4.0		5.0	1.0	2.5	1.0	0	2.3	5.0		0	0	0	0	0
Measuring Pin No.	17	18	19	20												
Stop Mode	0			2.0												

IC1502 LC6458DS

Measuring Pin No.	1	2	3	4	5	6	7	8
Stop Mode	Fluc	Fluc	Fluc	-5.0	Fluc	Fluc	Fluc	5.0
Play Mode								

Fluc : Fluctuation

VOLTAGES OF IC & TRANSISTOR

TRANSISTOR

(Unit : Volt)

Transistor No.	Q1101			Q1201			Q1202			Q1203		
Measuring Pin Name	E	C	B	E	C	B	E	C	B	E	C	B
Stop Mode	4.98	0.5	4.98	0	0.3	-0.6	0	0	0.6	0	2.2	0
Play Mode		4.86	-4.98									
Transistor No.	Q1206			Q1207								
Measuring Pin Name	E	C	B	E	C	B						
Stop Mode	0	0	0.6	0	0	0.6						
Play Mode				0	0.3	-0.7						
Transistor No.	Q1300			Q1301			Q1302			Q1303		
Measuring Pin Name	E	C	B	E	C	B	E	C	B	E	C	B
Voltagess	0	0.3/5	4/0.3	0	4/0.3	0/0.7	0	5/0.3	0/5	0	5/0.3	0/0.7
Transistor No.	Q1323			Q1324			Q1325			Q1326		
Measuring Pin Name	E	C	B	E	C	B	E	C	B	E	C	B
Stop Mode	0	5.6	0	0	4.2	0	0	-5.6	0.7	4.9	4.9	5.6
Play Mode												
Transistor No.	Q1327			Q1501			Q1503			Q1504		
Measuring Pin Name	E	C	B	E	C	B	E	C	B	E	C	B
Stop Mode	-5.0	-5.0	-5.6	4.0	4.9	4.7	0	0	0	0	0	0
Play Mode							0	0	2.0	0	0	2.0
Transistor No.	Q1505			Q1506			Q1601			Q1602		
Measuring Pin Name	E	C	B	E	C	B	E	C	B	E	C	B
Stop Mode	0	0	4.2	0	0	4.2	5.0	-3.0	5.0	0	5.0	0
Play Mode	0	0	-5.0	0	0	-5.0						
Transistor No.	Q1603											
Measuring Pin Name	E	C	B									
Stop Mode	0	4.3	0									
Play Mode	0	-5.0	4.3									

SANYO

SANYO Electric Co., Ltd.
Osaka, Japan